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**SERVICE
MANUAL 2216**

marantz

model 2216

Stereophonic Receiver

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1. INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model 2216 Stereophonic Receiver.

Servicing information and voltage data included in this manual are intended for use by the knowledgeable and experienced technician only. All instructions should be read carefully. No attempt

should be made to proceed without a good understanding of the operation of the receiver.

The parts list furnishes information by which replacement parts may be ordered from the Marantz Company. A simple description is included for parts which can usually be obtained through local suppliers.

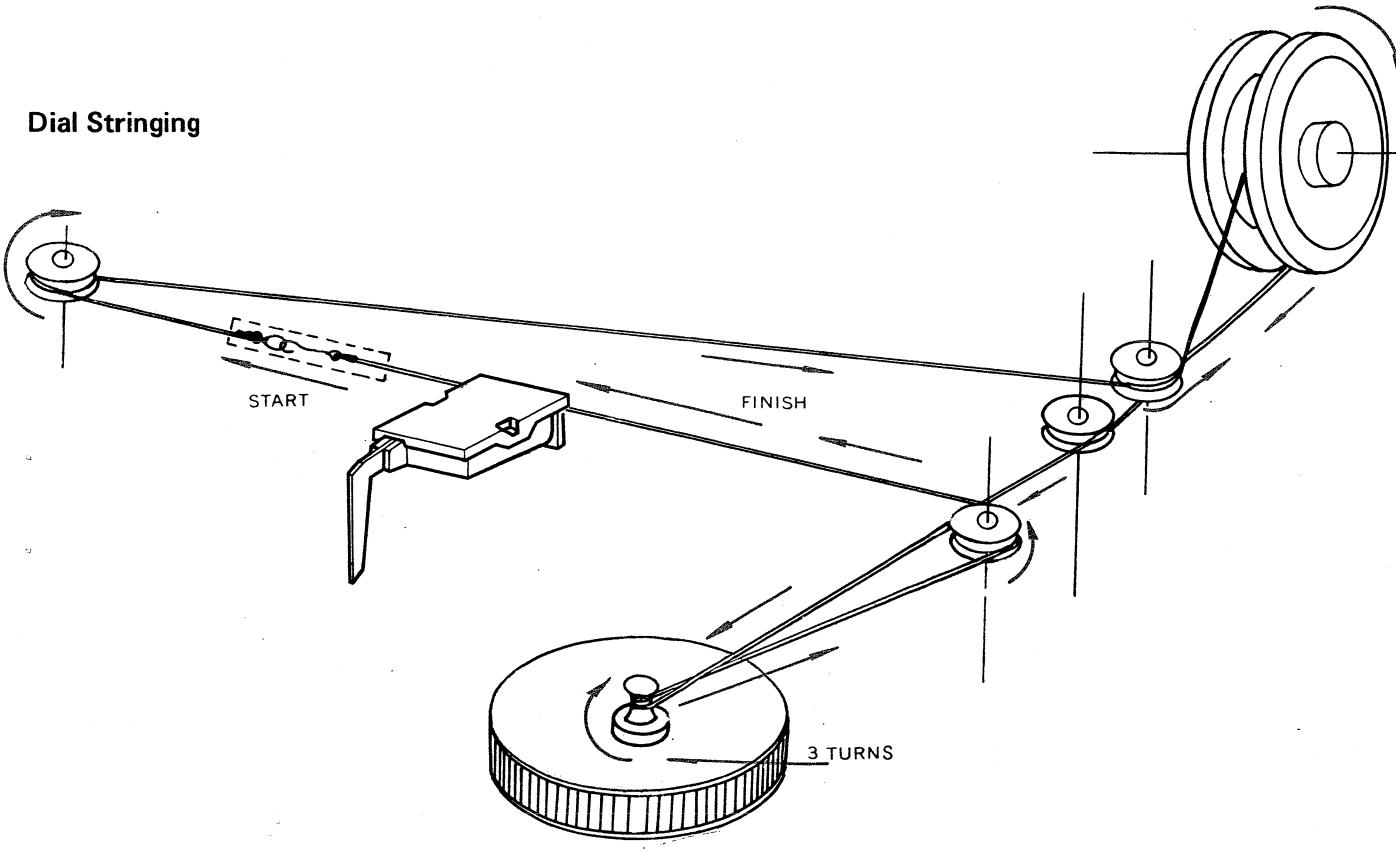
2. SERVICE NOTES

As can be seen from the circuit diagram, the chassis of Model 2216 consists of the following units. Each unit mounted on a printed circuit

board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. FM/AM Tuner	mounted on P.W. Board P100
2. Phono Amplifier	mounted on P.W. Board P400
3. Power Amplifier	mounted on P.W. Board P700
4. Power Supply	mounted on P.W. Board P800
5. Dial Lamp	mounted on P.W. Board PZ01
6. Monitor, Switch	mounted on P.W. Board PT01
7. Muting, Switch	mounted on P.W. Board PH01
8. Tone Amplifier	mounted on P.W. Board PE01

Dial Stringing



3. TEST EQUIPMENT REQUIRED FOR SERVICING

Table 1 lists the test equipment required for servicing the Model 2216 Receiver.

Item	Manufacturer and Model No.	Use
AM Signal Generator		Signal source for AM alignment
Test Loop		Use with AM Signal Generator
FM Signal Generator		Signal source for FM alignment
MPX Signal Generator	Sound Technology Model 1000A	Stereo separation alignment and trouble shooting
Distortion Analyzer		Distortion measurements
Audio Oscillator	Sound Technology Model 1700A	Sinewave and squarewave signal source
AC VTVM		Voltage measurements (AC)
Oscilloscope	Tektronix Model T932 Philips Model 3232	Waveform analysis and trouble shooting and ASO alignment
Frequency Counter	Fluke Model 1900A	MPX Oscillator adjustment (VCO)
Circuit Tester		Trouble shooting
DC VTVM	Fluke Model 8000 "Digital" Simpson Model 313, Triplet Model 801	Voltage measurements (DC)
AC Wattmeter	Simpson Model 1379	Monitors primary power to amplifier
AC Ammeter	Commercial Grade (1-10A)	Monitors amplifier output under short circuit condition
Line Voltmeter	Simpson Model 1359	Monitors potential of primary power to amplifier
Variable Autotransformer	Superior Electronic Co., Powerstat Model 116B-10A	Adjusts level of primary power to amplifier
Shorting Plug	Use phono plug with 600 ohm across center pin and shell	Shorts amplifier input to eliminate noise pickup
Output Load (8 ohms, 0.5%, 100W)	Commercial Grade	Provides 8-ohm load for amplifier output termination
Output Load (4 ohms, 0.5%, 100W)	Commercial Grade	Provides 4-ohm load for amplifier output termination

4. AM ALIGNMENT PROCEDURE

4.1 AM IF ALIGNMENT

1. Connect a sweep generator to the test point A or J105 and an alignment scope to J112.
2. Rotate each core of IF transformer L203 and L204 for maximum height and flat top symmetrical response.

4.2 AM FREQUENCY RANGE AND TRACKING ALIGNMENT

1. Set AM signal generator to 525 kHz. Turn the tuning capacitor fully closed (place the tuning pointer at the low end) and adjust the oscillator coil L202 for maximum audio output.

2. Set the signal generator to 1650 kHz. Place the tuning pointer in the high frequency end and adjust the oscillator trimmer on the oscillator tuning capacitor (CA-2) for maximum audio output.
3. Repeat steps 1 and 2 until no further adjustment is necessary.
4. Set the generator 600 kHz and tune the receiver to the same frequency and adjust a slug core of AM ferrite antenna for maximum output.
5. Set the generator to 1400 kHz and tune the receiver to the same frequency and adjust the trimming capacitors of Antenna (CA-1) for maximum output.
6. Repeat steps 4 and 5 until no further adjustment is necessary.

NOTE: During tracking alignment reduce the signal generator output as necessary to avoid AGC action.

5. FM ALIGNMENT PROCEDURE

1. Connect an FM signal generator to the FM antenna terminals and an oscilloscope and an audio distortion analyzer to the tape output jacks on the rear panel.
2. Set the FM SG to 87.5 MHz and provide about 3 to 5 μ V. Place the tuning pointer at the low frequency end by rotating the tuning knob and adjust the core of oscillator coil L103 to obtain maximum audio output.
3. Set the FM SG to 108.5 MHz and provide about 3 to 5 μ V output. Rotate the tuning knob and place the tuning pointer at the high frequency end and adjust the trimming capacitor CF-3 for maximum output.
4. Repeat steps 2 and 3 until no further adjustment is necessary.
5. Set the FM SG to 90 MHz and tune the receiver to the same frequency. Decrease signal generator output until the audio output level decreases with the decreasing generator output. Adjust the antenna coil L101, RF coil L102 and IF transformer L105 for minimum audio distortion.
6. Set the FM SG to 106 MHz and tune the receiver to the same frequency. Adjust the

trimming capacitor CF-1, CF-2 for minimum distortion.

7. Repeat steps 5 and 6 until no further adjustment is necessary.
8. Connect a DC VTVM with ± 0.5 volt range selected to the test point E (J116) and adjust the secondary core (upper) of discriminator transformer L106 so that no voltage reading is obtained on the VTVM at no signal. Next set the FM SG to 98 MHz and increase the output level to 1 $k\mu$ V, then tune the receiver to the same frequency so that no deflection is obtained. Adjust primary core (bottom) of L106 for minimum distortion, and adjust the L107 for the maximum reading on the VTVM connected to the J114.

6. STEREO SEPARATION ALIGNMENT

1. Set the FM SG to provide 1 $k\mu$ V at 98 MHz. Tune the receiver to the same frequency perfectly.
2. Turn the FM SG modulation off (with the pilot signal turned off), connect a frequency counter to test point J120, and adjust R302 so that the frequency counter may precisely read 19 kHz.
3. Modulate the FM SG with stereo composite signal consisting of only subchannel signal (of course a pilot signal must be included).
4. Adjust the trimming resistor R301 for maximum and same separation in both channels.

7. MUTING CIRCUIT ALIGNMENT

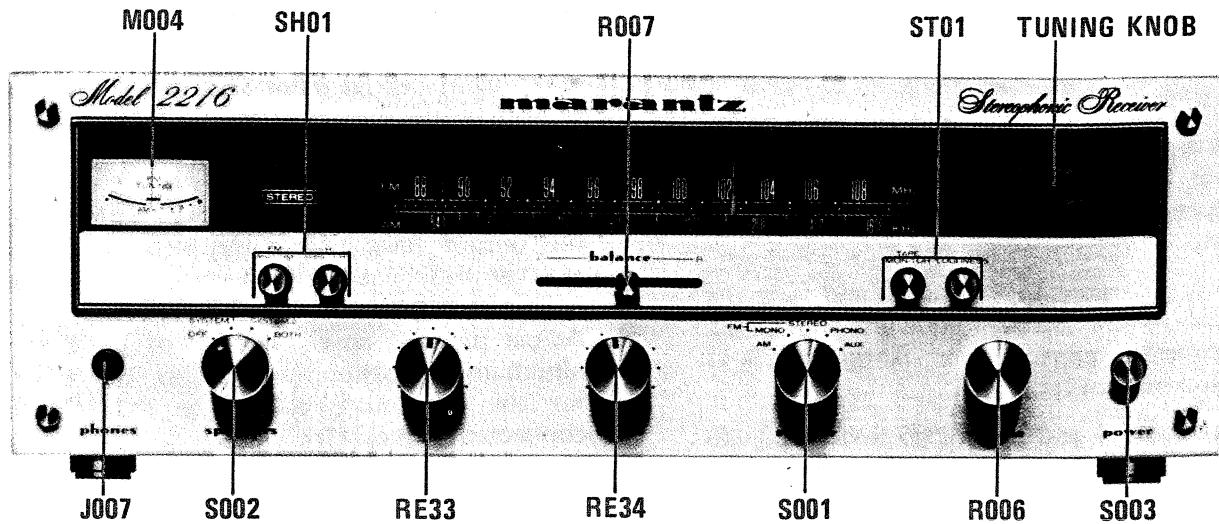
Set the FM SG output to provide 25 μ V (IHF) at 98 MHz and tune the receiver to the same frequency. Adjust the trimming resistor R161 for the threshold level of 25 μ V (during this adjustment turn the MUTING pushswitch "on").

8. AUDIO ADJUSTMENT

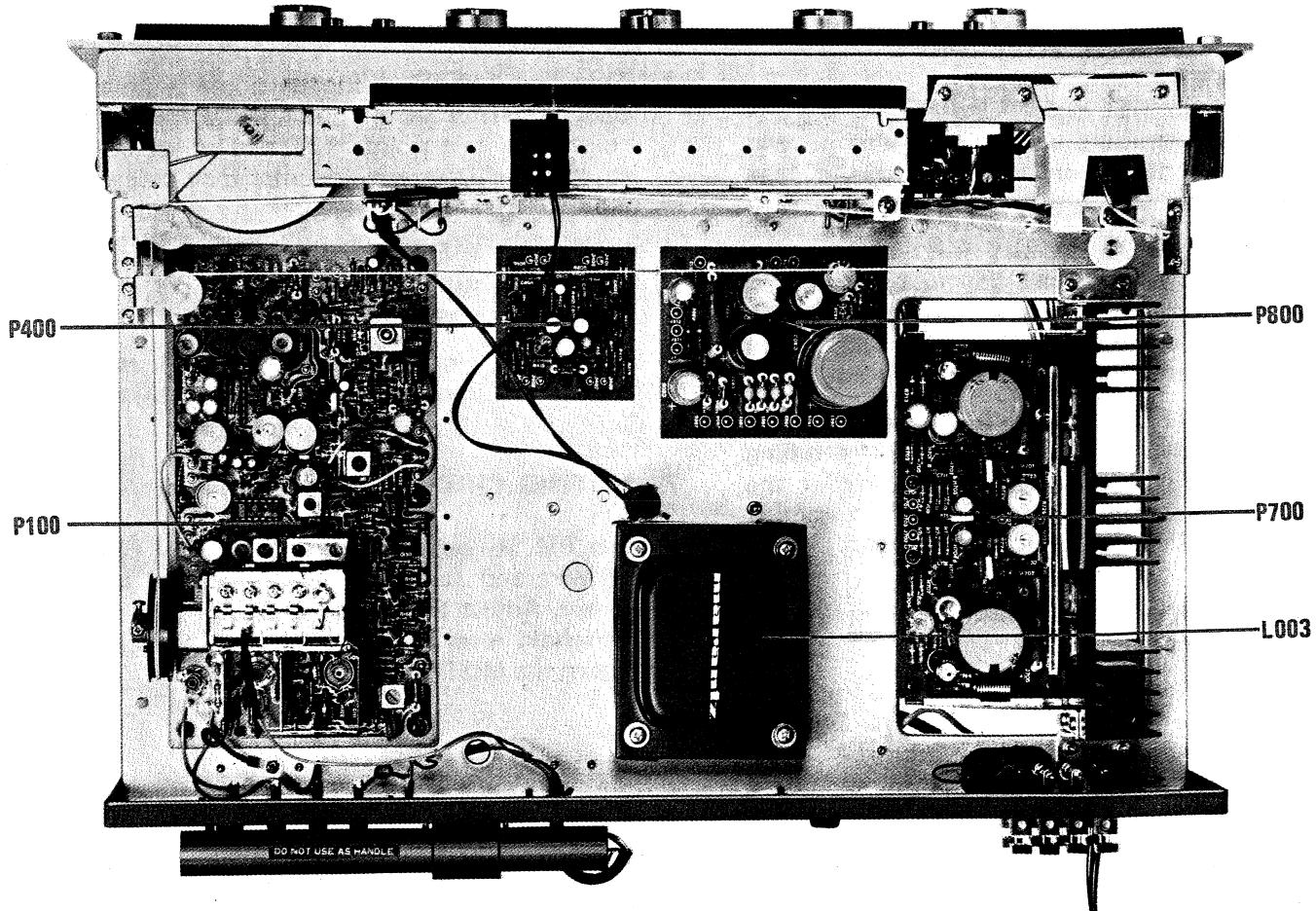
Connect a VTVM across the resistor R735 and adjust the trimming resistor R727 until the VTVM reads 4.5 mV DC. For the other channel connect the VTVM across the R736 and adjust the R728 for the same reading.

9. MAJOR COMPONENT LOCATIONS

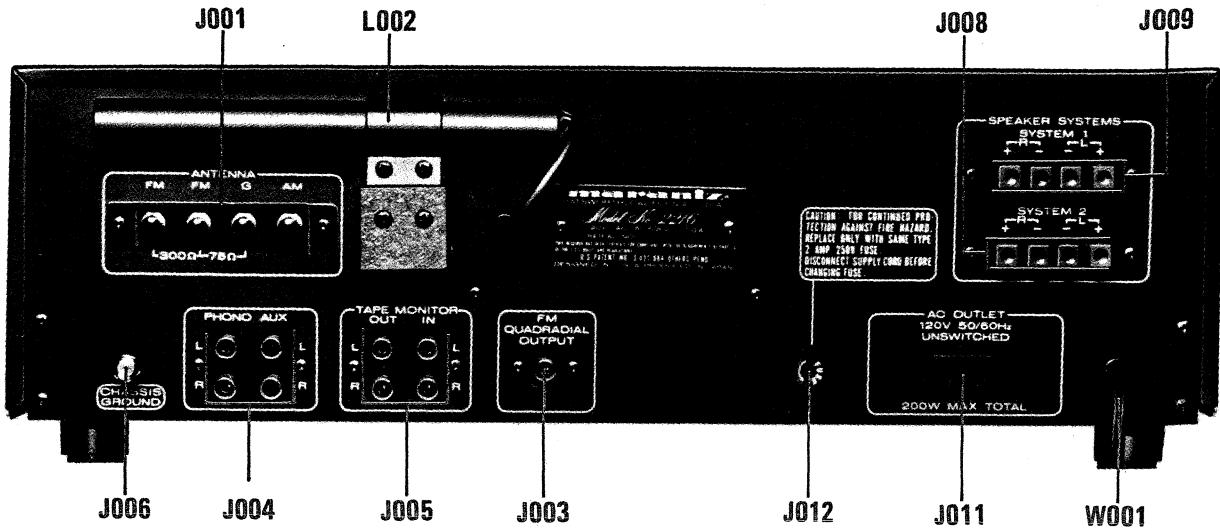
9.1 Front Panel Adjustment and Component Locations



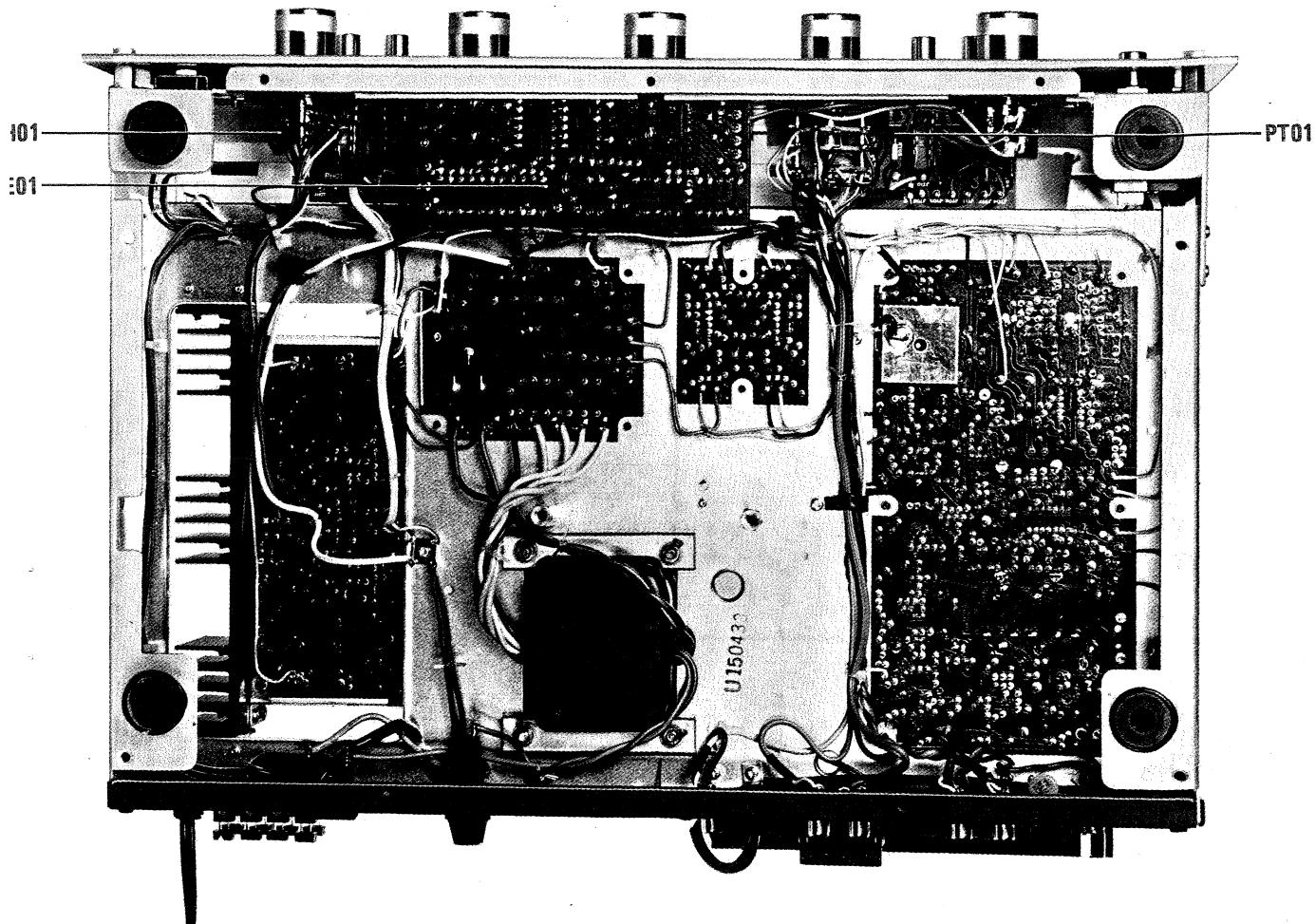
9.2 Main Chassis Component Locations (Top View)



9.3 Rear Panel Adjustment and Component Locations

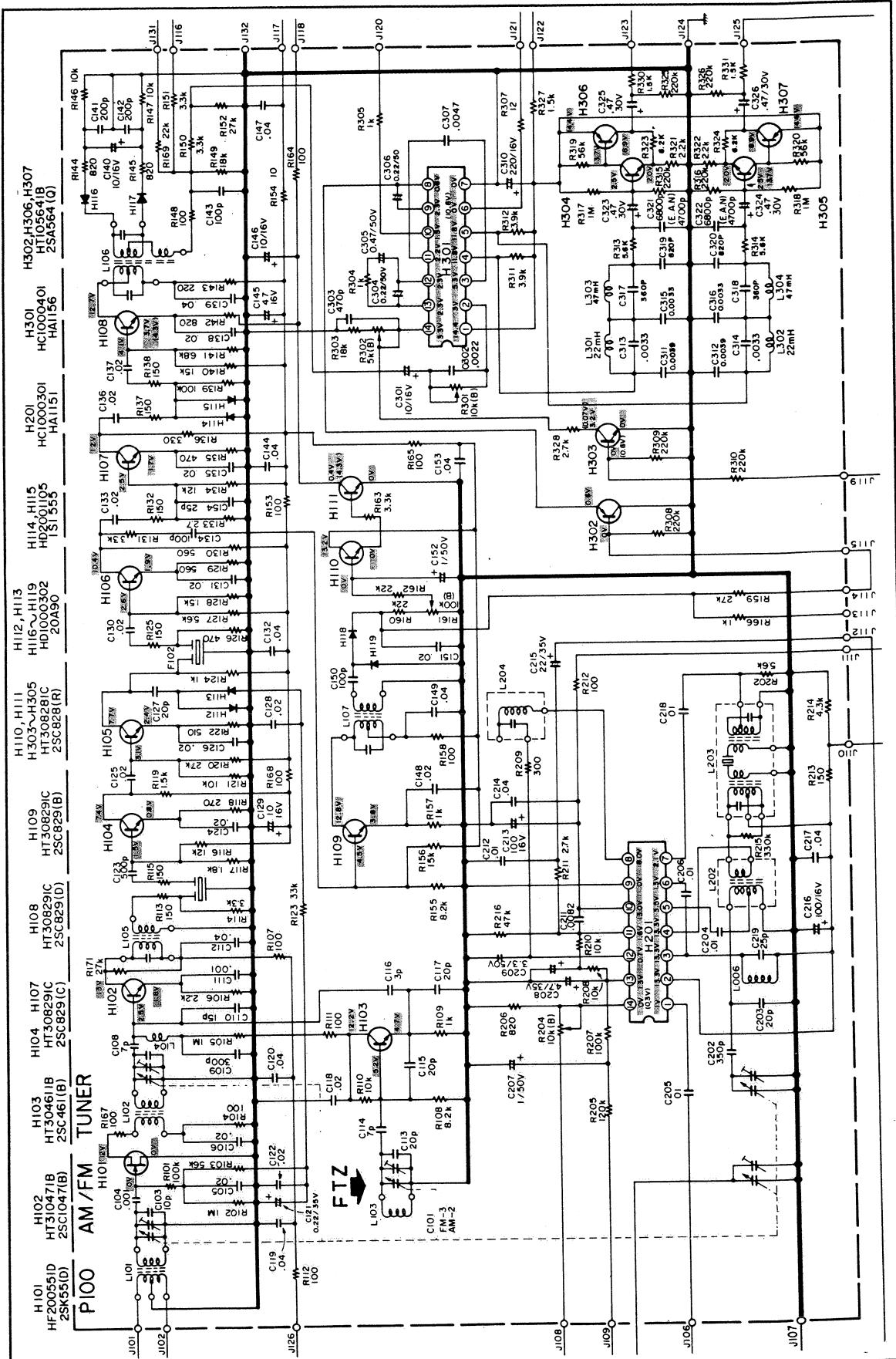


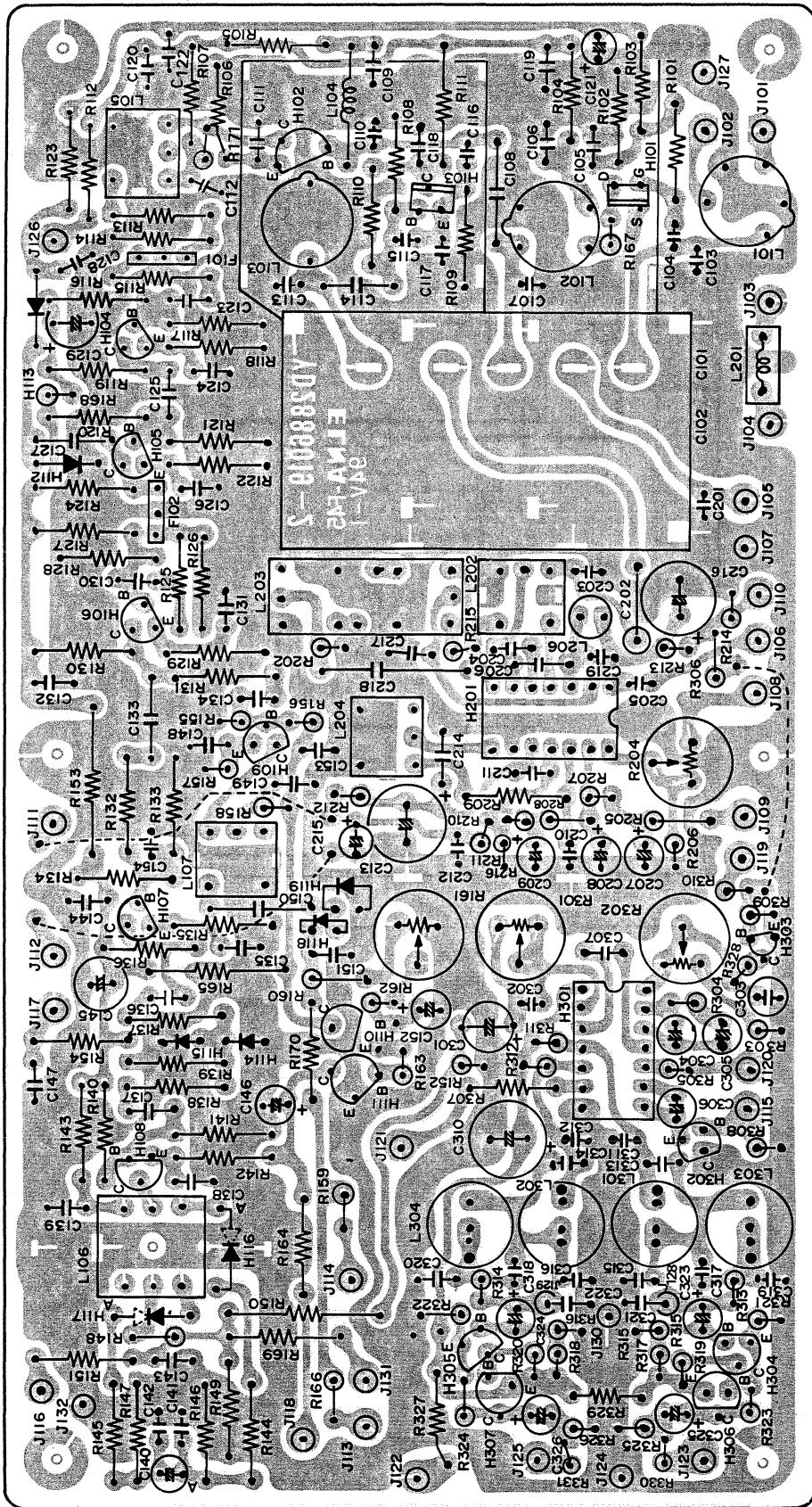
9.4 Main Chassis Component Locations (Bottom View)



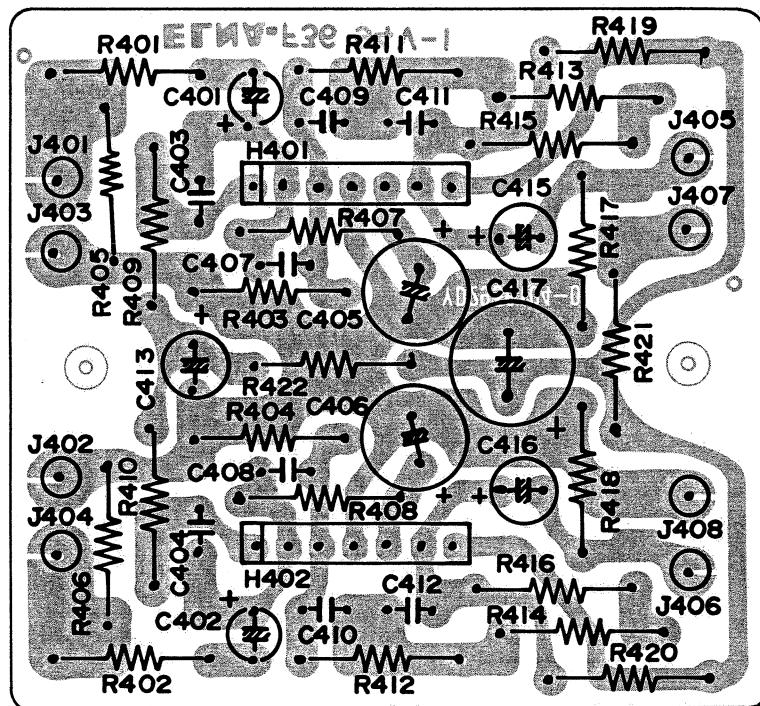
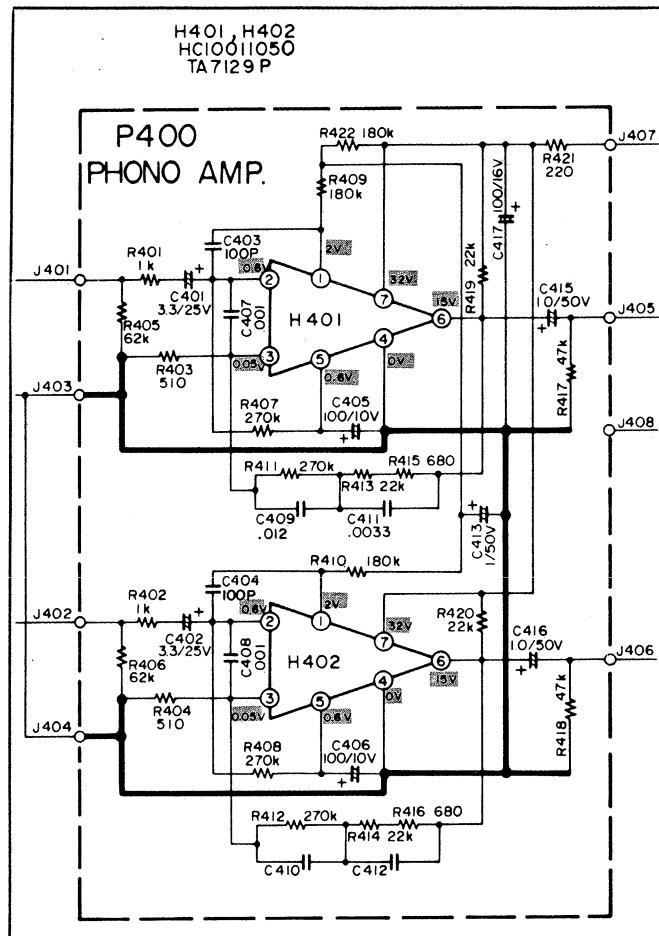
10. DIAGRAM AND COMPONENT LOCATIONS

10.1 FM/AM Tuner Assembly (P100) Schematic Diagram and Component Locations





10.2 EQ Amplifier (P400) Schematic Diagram and Component Locations



10.3 Main Amplifier (P700) Schematic Diagram and Component Locations

H701, H702
HT105641K
2SA564AC

H703, H704
HT313842C
2SCI 384 (R)

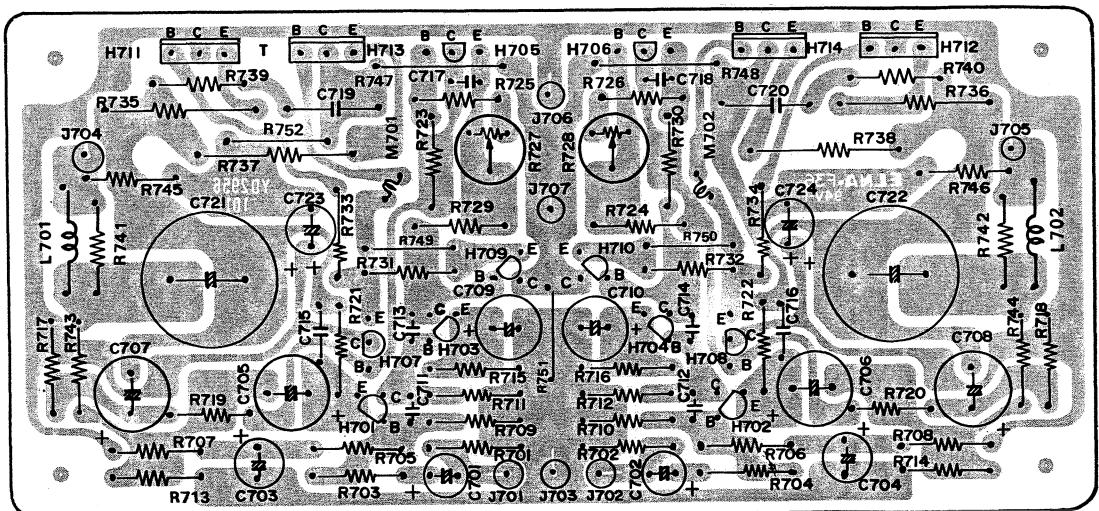
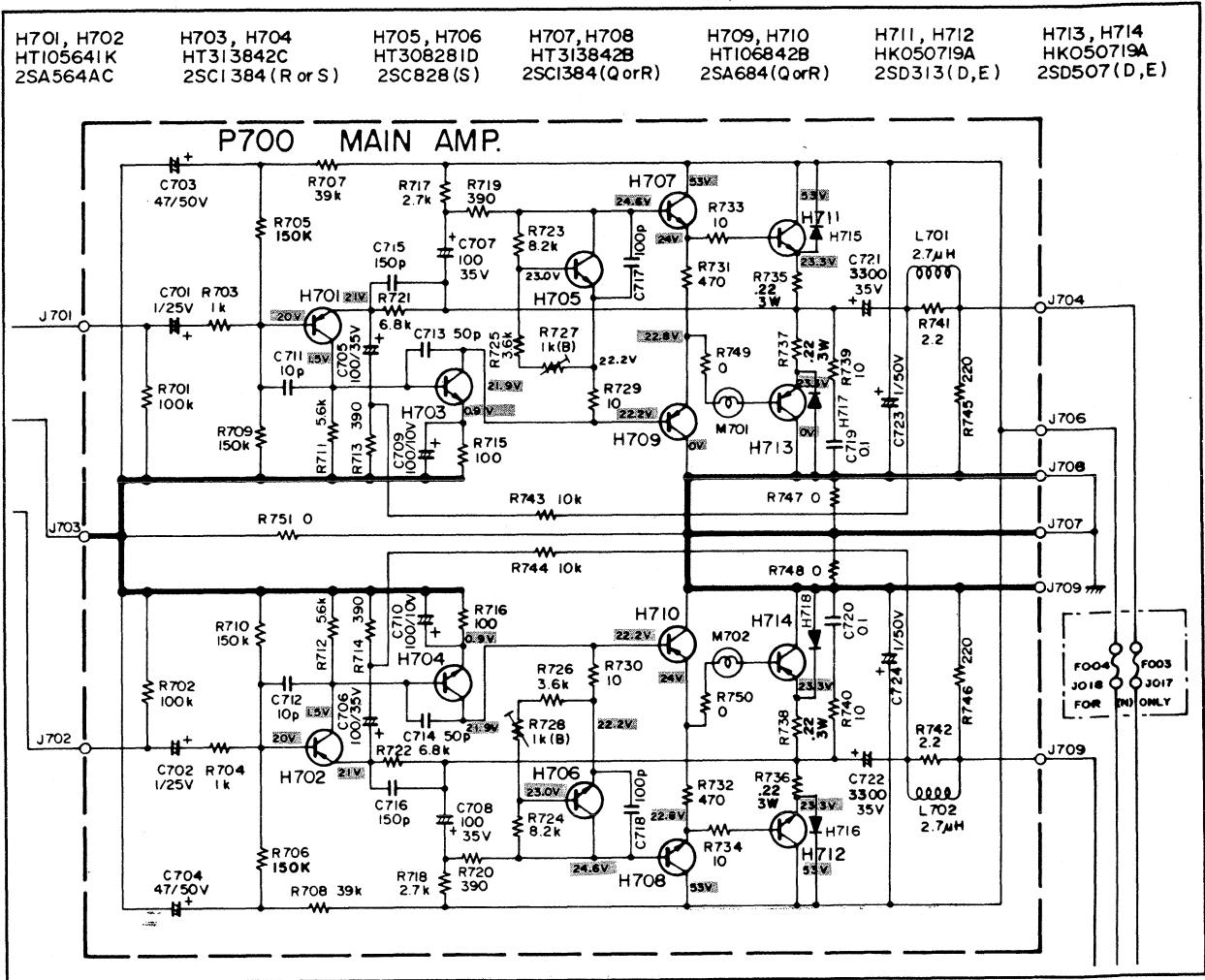
H705, H706
HT308281D
2SC828 (S)

H707, H708
HT313842B
2SCI384 (Q or R)

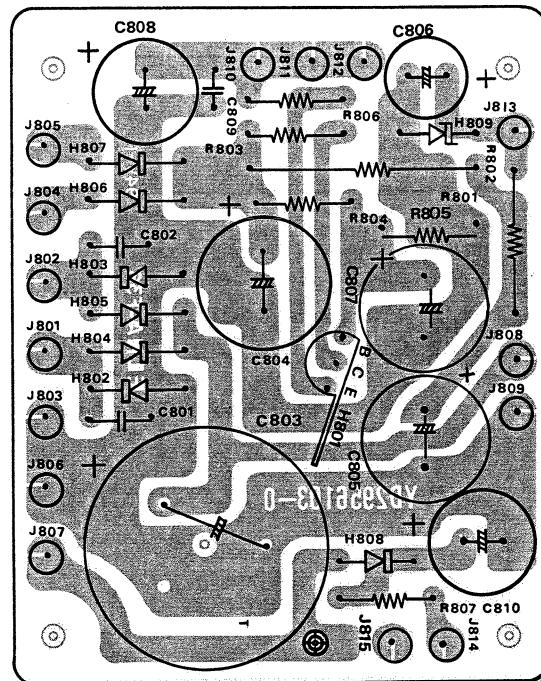
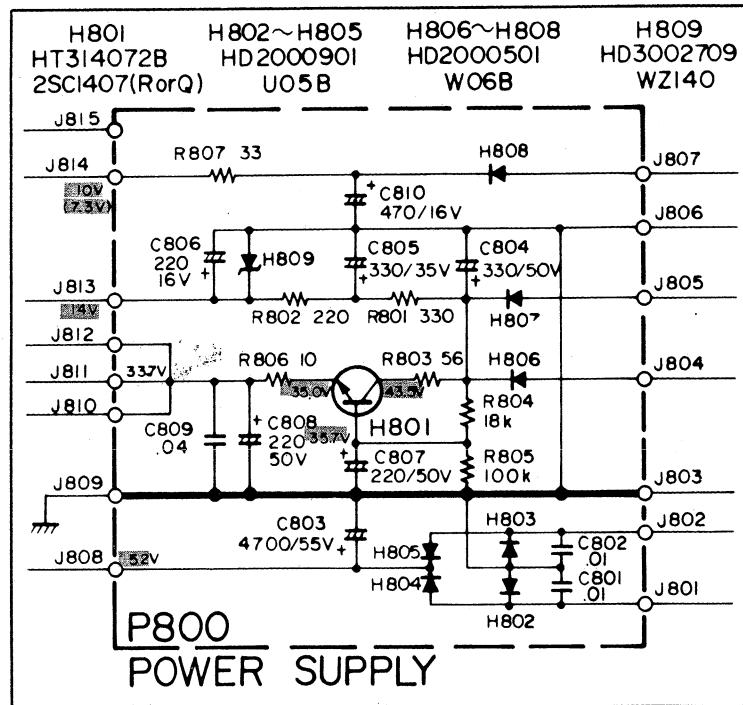
H709, H710
HT106842B
2SA684 (Q or R)

H711, H712
HK050719A
2SD313(D,E)

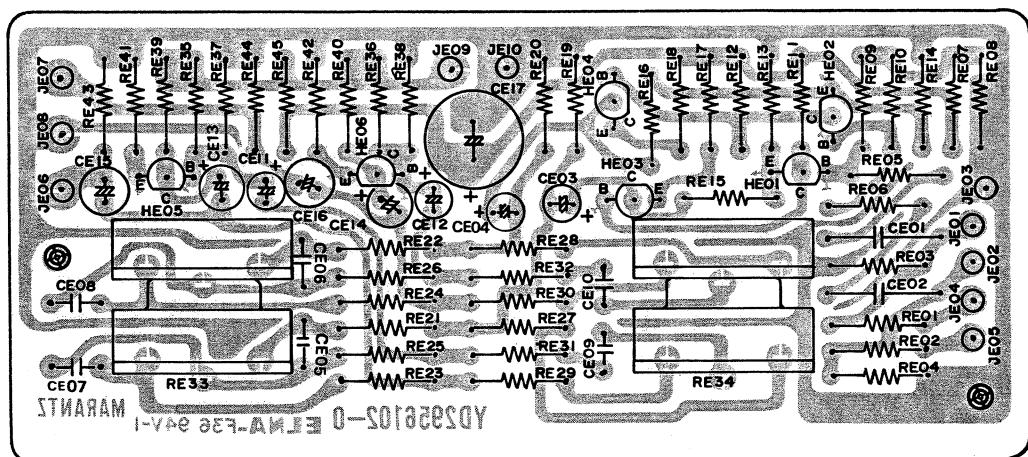
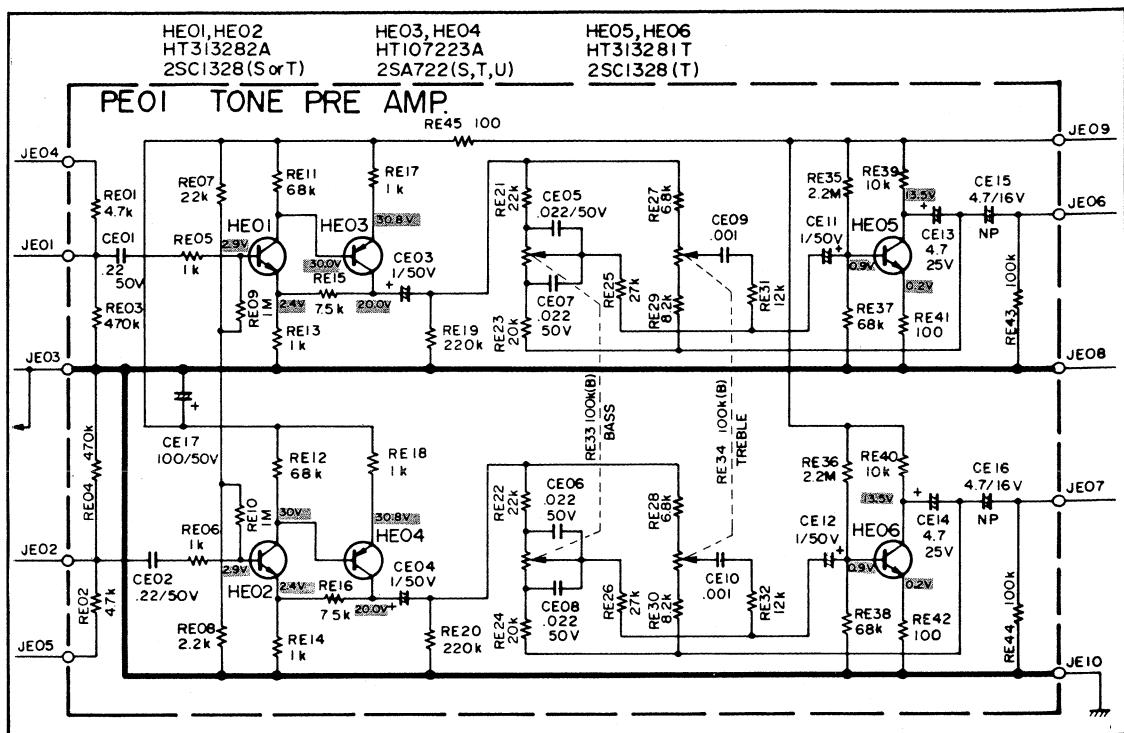
H713, H714
HK050719A
2SD507(D,E)



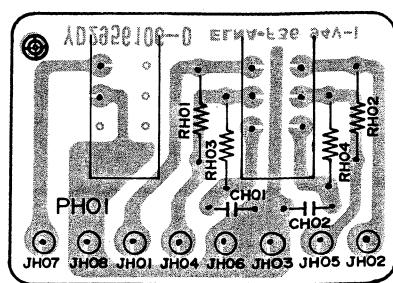
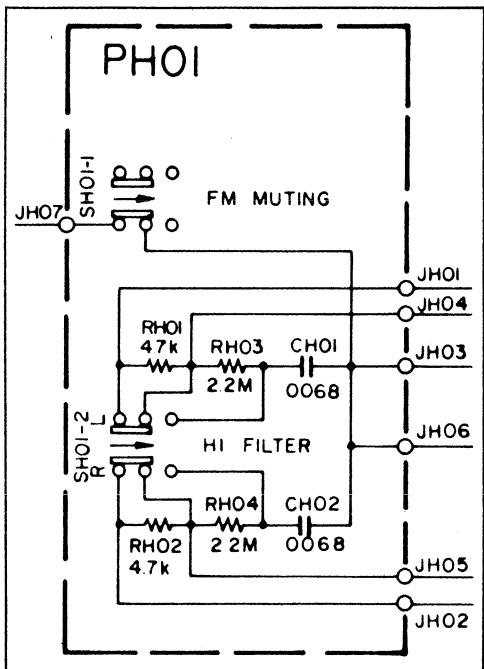
10.4 Power Supply Assembly (P800) Schematic Diagram and Component Locations



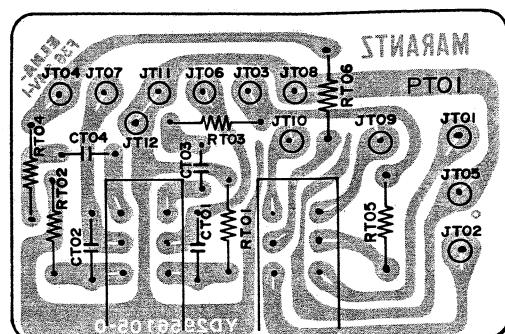
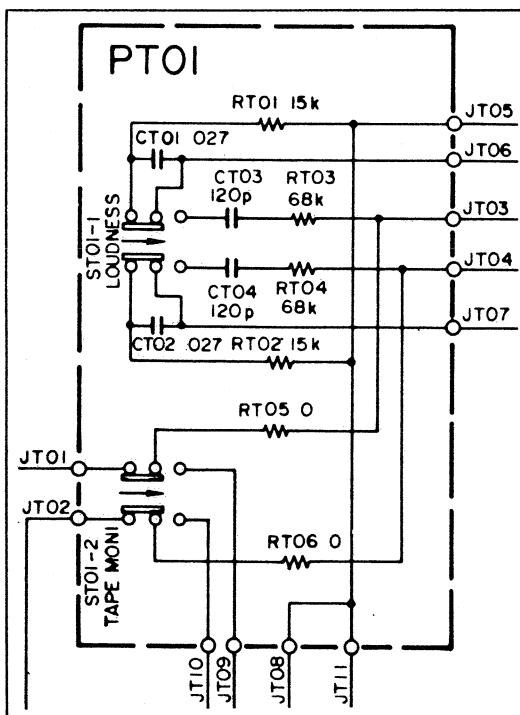
10.5 Tone Amplifier (PE01) Schematic Diagram and Component Locations



10.6 Muting and Hi Filter Assembly (PH01) Schematic Diagram and Component Locations

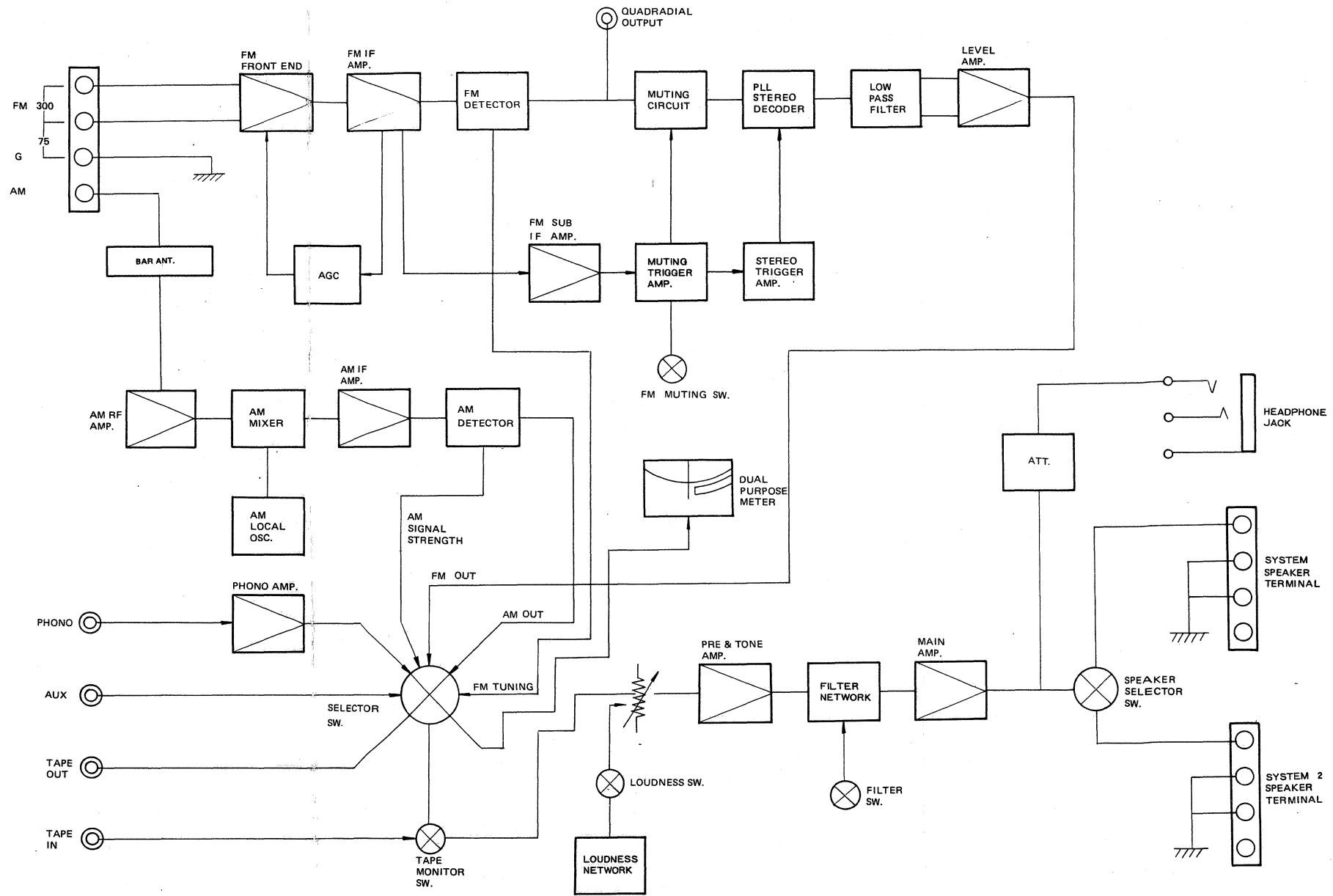
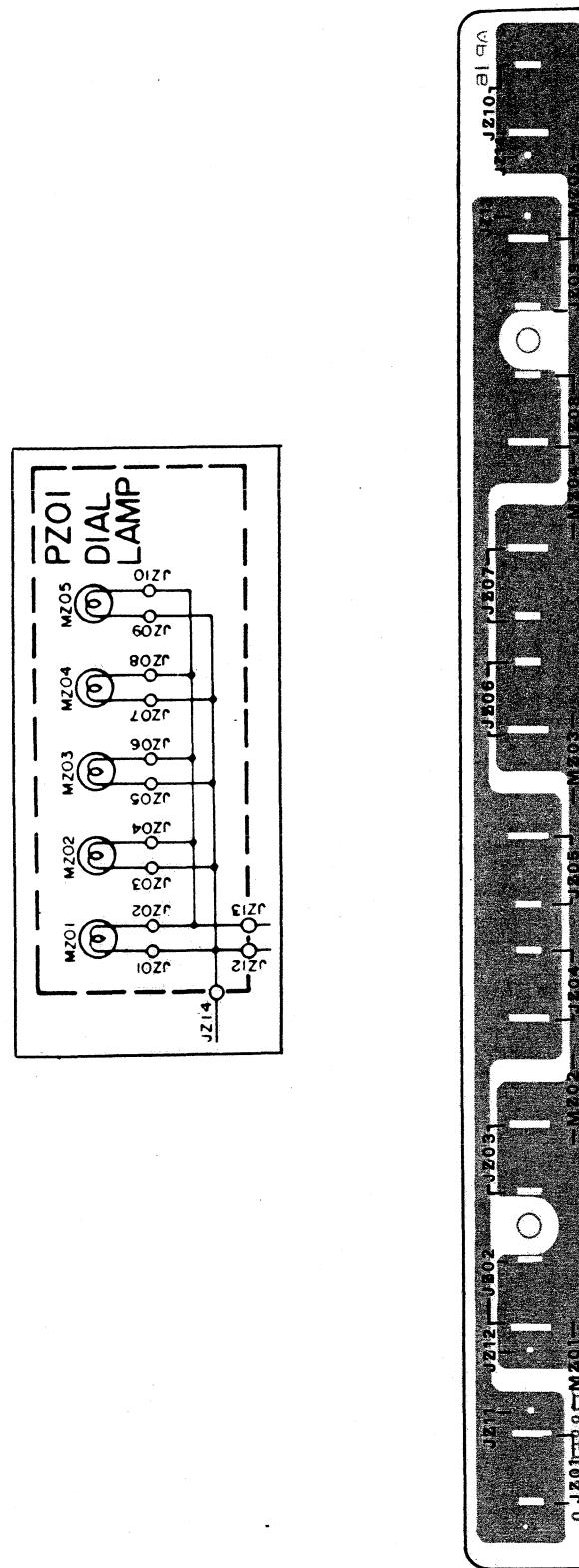


10.7 Loudness and Monitor Assembly (PT01) Schematic Diagram and Component Locations

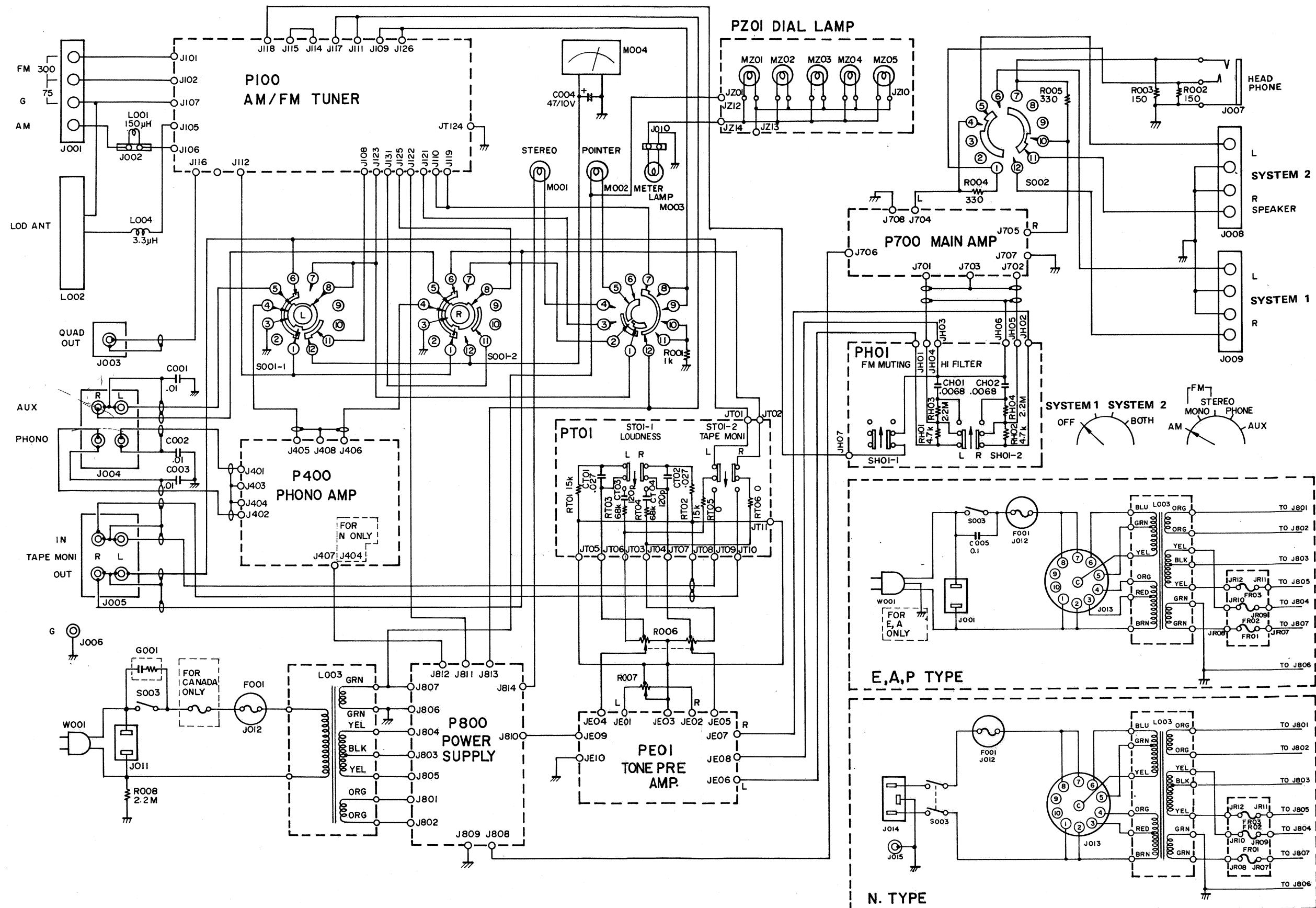


11. BLOCK DIAGRAM

10.8 Dial Lamp Assembly (PZ01) Schematic Diagram and Component Locations

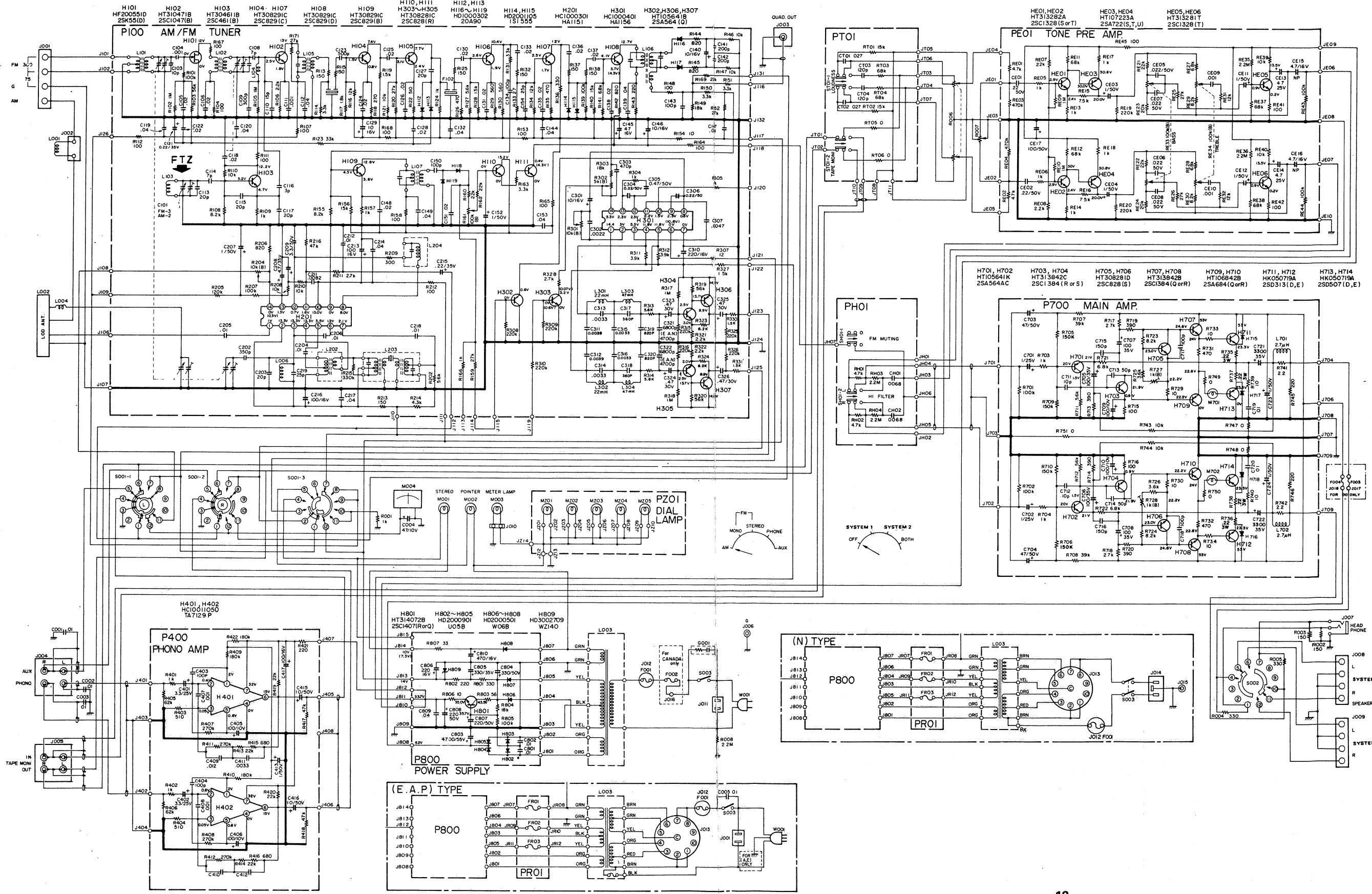


12. CONNECTION DIAGRAM

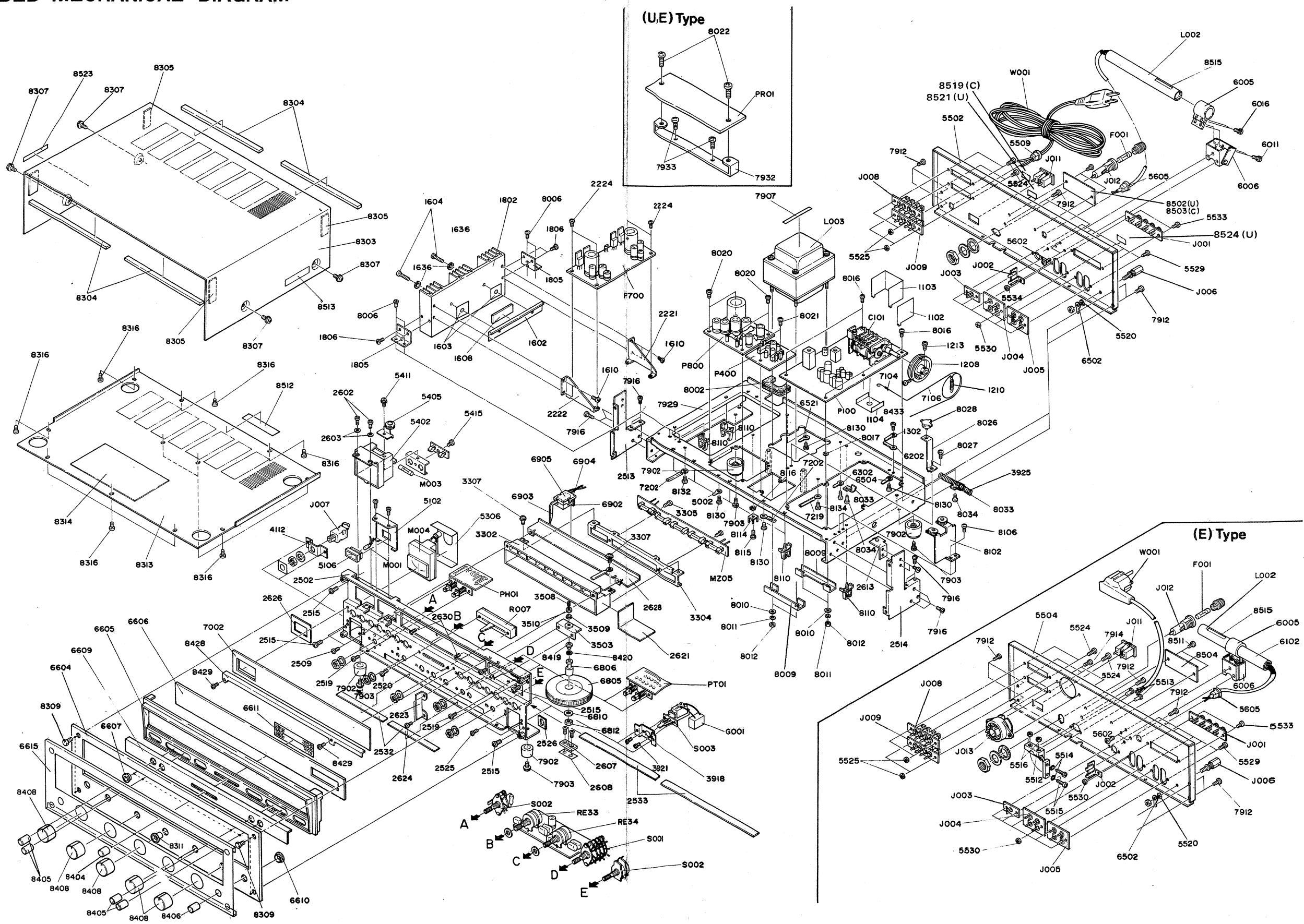


13. SCHEMATIC DIAGRAM

Model 2216



14. EXPLODED MECHANICAL DIAGRAM



U: For U.S.A.
C: For Canada
E: For Europe

15. PARTS LIST

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION	REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E				U	C	E		
A	1	1	1	2221063400	Front Panel Assembly	P108	8	8	8	2933118020	Spacer
6604	1	1	1	2221063013	Escutcheon	P107	2	2	2	3444118050	Spacer
6605	1	1	1	2221401012	Frame	R101	1	1	1	RT05104140	Resistor, 100kΩ ±5% 1/4W
6606	1	1	1	2221158010	Window	R102	1	1	1	RT05105140	Resistor, 1MΩ ±5% 1/4W
6607	4	4	4	2221259012	Bushing	R103	1	1	1	RT05563140	Resistor, 56kΩ ±5% 1/4W
6609	1	1	1	2221063020	Escutcheon	R104	1	1	1	RT05101140	Resistor, 100Ω ±5% 1/4W
6610	1	1	1	2818259050	Bushing	R105	1	1	1	RT05105140	Resistor, 1MΩ ±5% 1/4W
6611	1	1	1	2915107010	Sheet	R106	1	1	1	RT05222140	Resistor, 2.2kΩ ±5% 1/4W
6615	1	1	1	2915053010	Cover	R107	1	1	1	RT05101140	Resistor, 100Ω ±5% 1/4W
B	1	1	1	2853273400	Flywheel Assembly	R108	1	1	1	RT05822140	Resistor, 8.2kΩ ±5% 1/4W
6804	2	2	2	2577063022	Escutcheon	R109	1	1	1	RT05102140	Resistor, 1kΩ ±5% 1/4W
6805	1	1	1	2577273010	Flywheel	R110	1	1	1	RT05103140	Resistor, 10kΩ ±5% 1/4W
6806	1	1	1	2853112010	Shaft	R111	1	1	1	RT05101140	Resistor, 100Ω ±5% 1/4W
6810	1	1	1	53110603E9	Hexagon Nut	R112	1	1	1	RT05101140	Resistor, 100Ω ±5% 1/4W
6812	1	1	1	54020601E0	Flat Washer	R113	1	1	1	RT05151140	Resistor, 150Ω ±5% 1/4W
C	1	1	1	2915103400	Pointer Assembly	R114	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% 1/4W
6902	1	1	1	2915103012	Pointer	R115	1	1	1	RT05151140	Resistor, 150Ω ±5% 1/4W
6903	1	1	1	2818103020	Pointer	R116	1	1	1	RT05123140	Resistor, 12kΩ ±5% 1/4W
6904	1	1	1	2915103020	Cover	R117	1	1	1	RT05182140	Resistor, 1.8kΩ ±5% 1/4W
6905	1	1	1	2915267030	Heatsink	R118	1	1	1	RT05271140	Resistor, 270Ω ±5% 1/4W
M002	1	1	1	IN10080300	Lamp	R119	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% 1/4W
D	1	1	1	1202006430	Hook Assembly	R120	1	1	1	RT05273140	Resistor, 27kΩ ±5% 1/4W
7104	1	1	1	1202258010	Hook	R121	1	1	1	RT05103140	Resistor, 10kΩ ±5% 1/4W
7106	1	1	1	72071605A0	String	R122	1	1	1	RT05511140	Resistor, 510Ω ±5% 1/4W
E	1	1	1	2819159410	Drum Assembly	R123	1	1	1	RT05333140	Resistor, 33kΩ ±5% 1/4W
1208	1	1	1	2819159012	Drum	R124	1	1	1	RT05102140	Resistor, 1kΩ ±5% 1/4W
1210	1	1	1	71101569M0	Spring	R125	1	1	1	RT05151140	Resistor, 150Ω ±5% 1/4W
1213	2	2	2	51064019A9	Set Screw	R126	1	1	1	RT05471140	Resistor, 470Ω ±5% 1/4W
F			1	2221160400	Rear Panel Assembly	R127	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% 1/4W
5504			1	2221160220	Bracket	R128	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% 1/4W
5512			1	2821259010	Bushing	R129	1	1	1	RT05561140	Resistor, 560Ω ±5% 1/4W
5513			2	55060305S0	T.R. Rivet	R130	1	1	1	RT05561140	Resistor, 560Ω ±5% 1/4W
5514			2	54050300R0	T.L. Washer	R131	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% 1/4W
G	1	1	1	2956257420	Lid Assembly, Upper	R132	1	1	1	RT05151140	Resistor, 150Ω ±5% 1/4W
8303	1	1	1	2956257010	Lid	R133	1	1	1	RT05272140	Resistor, 2.7kΩ ±5% 1/4W
8304	4	4	4	2577118070	Spacer	R134	1	1	1	RT05123140	Resistor, 12kΩ ±5% 1/4W
H	1	1	1	2956257410	Lid Assembly, Lower	R135	1	1	1	RT05471140	Resistor, 470Ω ±5% 1/4W
8313	1	1	1	2956257020	Lid	R136	1	1	1	RT05331140	Resistor, 330Ω ±5% 1/4W
8314	1	1	1	2888120010	Insulator	R137	1	1	1	RT05151140	Resistor, 150Ω ±5% 1/4W
P100	1	1	1	YD28860192	P100 TUNER BOARD	R138	1	1	1	RT05151140	Resistor, 150Ω ±5% 1/4W
			1	ZZ22211192	P.W. Board	R139	1	1	1	RT05104140	Resistor, 100kΩ ±5% 1/4W
			1	ZZ22218192	P.W. Board Assembly	R140	1	1	1	RT05153140	Resistor, 15kΩ ±5% 1/4W
					P100 TUNER BOARD	R141	1	1	1	RT05682140	Resistor, 6.8kΩ ±5% 1/4W
						R142	1	1	1	RT05821140	Resistor, 820Ω ±5% 1/4W
						R143	1	1	1	RT05221140	Resistor, 220Ω ±5% 1/4W
						R144	1	1	1	RT05821140	Resistor, 820Ω ±5% 1/4W
						R145	1	1	1	RT05821140	Resistor, 820Ω ±5% 1/4W
						R146	1	1	1	RT05103140	Resistor, 10kΩ ±5% 1/4W
						R147	1	1	1	RT05103140	Resistor, 10kΩ ±5% 1/4W
						R148	1	1	1	RT05101140	Resistor, 100Ω ±5% 1/4W
						R149	1	1	1	RT05183140	Resistor, 18kΩ ±5% 1/4W
						R150	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% 1/4W
						R151	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% 1/4W
						R152	1	1	1	RT05273140	Resistor, 27kΩ ±5% 1/4W
						R153	1	1	1	RT05101140	Resistor, 100Ω ±5% 1/4W
						R154	1	1	1	RT05100140	Resistor, 10Ω ±5% 1/4W
						R155	1	1	1	RT05822140	Resistor, 8.2kΩ ±5% 1/4W
						R156	1	1	1	RT05153140	Resistor, 15kΩ ±5% 1/4W

REF. DESIG.	Q'TY U C E			PART NO.	DESCRIPTION					REF. DESIG.	Q'TY U C E			PART NO.	DESCRIPTION				
R157	1	1	1	RT05102140	Resistor,	1kΩ	±5%	1/4W		R328	1	1	1	RT05272140	Resistor,	2.7kΩ	±5%	1/4W	
R158	1	1	1	RT05101140	Resistor,	100Ω	±5%	1/4W		R329	1	1	1	RC00000120	Resistor,	0Ω			
R159	1	1	1	RT05273140	Resistor,	27kΩ	±5%	1/4W		R313			1	RT05562140	Resistor,	5.6kΩ	±5%	1/4W	
R160	1	1	1	RT05223140	Resistor,	22kΩ	±5%	1/4W		R314			1	RT05562140	Resistor,	5.6kΩ	±5%	1/4W	
R161	1	1	1	RA01040180	Trimming Resistor,	100kΩ	(B)			C101	1	1	1	CA32500020	Variable Cap.,	FM-3	AM-2		
R162	1	1	1	RT05223140	Resistor,	22kΩ	±5%	1/4W		C103	1	1	1	DD12100010	Ceramic Cap.,	10pF	±1pF		
R163	1	1	1	RT05332140	Resistor,	3.3kΩ	±5%	1/4W		C104	1	1	1	DK17102010	Ceramic Cap.,	0.001μF	±20%		
R164	1	1	1	RT05101140	Resistor,	100Ω	±5%	1/4W		C105	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R165	1	1	1	RT05101140	Resistor,	100Ω	±5%	1/4W		C106	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R166	1	1	1	RT05102140	Resistor,	1kΩ	±5%	1/4W		C107	1	1	1	DD12100010	Ceramic Cap.,	10pF	±1pF		
R167	1	1	1	RT05101140	Resistor,	100Ω	±5%	1/4W		C108	1	1	1	DD12070030	Ceramic Cap.,	7pF	±1pF		
R168	1	1	1	RT05101140	Resistor,	100Ω	±5%	1/4W		C109	1	1	1	DD15301010	Ceramic Cap.,	300pF	±5%		
R169	1	1	1	RT05223140	Resistor,	22kΩ	±5%	1/4W		C110	1	1	1	DD16150030	Ceramic Cap.,	15pF	±10%		
R170	1	1	1	RC00000120	Resistor,	0Ω				C111	1	1	1	DK17101010	Ceramic Cap.,	0.001μF	±20%		
R171	1	1	1	RT05273140	Resistor,	27kΩ	±5%	1/4W		C112	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%		
R202	1	1	1	RT05562140	Resistor,	5.6kΩ	±5%	1/4W		C113	1	1	1	DD15200020	Ceramic Cap.,	20pF	±5%		
R204	1	1	1	RA01030250	Trimming Resistor,	10kΩ	(B)			C114	1	1	1	DD12070030	Ceramic Cap.,	7pF	±1pF		
R205	1	1	1	RT05124140	Resistor,	120kΩ	±5%	1/4W		C115	1	1	1	DD15200010	Ceramic Cap.,	20pF	±5%		
R206	1	1	1	RT05821140	Resistor,	820Ω	±5%	1/4W		C116	1	1	1	DD11030010	Ceramic Cap.,	3pF	±0.5pF		
R207	1	1	1	RT05104140	Resistor,	100kΩ	±5%	1/4W		C117	1	1	1	DD15200010	Ceramic Cap.,	20pF	±5%		
R208	1	1	1	RT05103140	Resistor,	10kΩ	±5%	1/4W		C118	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R209	1	1	1	RT05301140	Resistor,	300Ω	±5%	1/4W		C119	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%		
R210	1	1	1	RT05103140	Resistor,	10kΩ	±5%	1/4W		C120	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%		
R211	1	1	1	RT05272140	Resistor,	2.7kΩ	±5%	1/4W		C121	1	1	1	EV22403560	Electrolytic Cap.,	0.022μF	35V		
R212	1	1	1	RT05101140	Resistor,	100Ω	±5%	1/4W		C122	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R213	1	1	1	RT05151140	Resistor,	150Ω	±5%	1/4W		C123	1	1	1	DD16501010	Ceramic Cap.,	500pF	±10%		
R214	1	1	1	RT05432140	Resistor,	4.3kΩ	±5%	1/4W		C124	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R215	1	1	1	RT05334140	Resistor,	330kΩ	±5%	1/4W		C125	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R216	1	1	1	RT05473140	Resistor,	47kΩ	±5%	1/4W		C126	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R330	1	1	1	RT05152140	Resistor,	1.5kΩ	±5%	1/4W		C127	1	1	1	DD16200010	Ceramic Cap.,	20pF	±10%		
R331	1	1	1	RT05152140	Resistor,	1.5kΩ	±5%	1/4W		C128	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R301	1	1	1	RA01030250	Trimming Resistor,	10kΩ	(B)			C129	1	1	1	EA10601690	Electrolytic Cap.,	10μF	16V		
R302	1	1	1	RA04720050	Trimming Resistor,	4.7kΩ	(B)			C130	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R303	1	1	1	RT05163140	Resistor,	16kΩ	±5%	1/4W		C131	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R304	1	1	1	RT05102140	Resistor,	1kΩ	±5%	1/4W		C132	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%		
R305	1	1	1	RT05102140	Resistor,	1kΩ	±5%	1/4W		C133	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R307	1	1	1	RT05120140	Resistor,	12Ω	±5%	1/4W		C134	1	1	1	DD16101010	Ceramic Cap.,	100pF	±10%		
R308	1	1	1	RT052224140	Resistor,	220kΩ	±5%	1/4W		C135	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R309	1	1	1	RT052224140	Resistor,	220kΩ	±5%	1/4W		C136	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R310	1	1	1	RT052224140	Resistor,	220kΩ	±5%	1/4W		C137	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R311	1	1	1	RT05392140	Resistor,	3.9kΩ	±5%	1/4W		C138	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R312	1	1	1	RT05392140	Resistor,	3.9kΩ	±5%	1/4W		C139	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%		
R313	1	1	1	RT05562140	Resistor,	5.6kΩ	±5%	1/4W		C140	1	1	1	EA10601690	Electrolytic Cap.,	10μF	16V		
R314	1	1	1	RT05562140	Resistor,	5.6kΩ	±5%	1/4W		C141	1	1	1	DD16201010	Ceramic Cap.,	200pF	±10%		
R315	1	1	1	RT05224140	Resistor,	220kΩ	±5%	1/4W		C142	1	1	1	DD16201010	Ceramic Cap.,	200pF	±10%		
R316	1	1	1	RT05224140	Resistor,	220kΩ	±5%	1/4W		C143	1	1	1	DD16101010	Ceramic Cap.,	100pF	±10%		
R317	1	1	1	RT05105140	Resistor,	1MΩ	±5%	1/4W		C144	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%		
R318	1	1	1	RT05105140	Resistor,	1MΩ	±5%	1/4W		C145	1	1	1	EA47601690	Electrolytic Cap.,	47μF	16V		
R319	1	1	1	RT05563140	Resistor,	56kΩ	±5%	1/4W		C146	1	1	1	EA10601690	Electrolytic Cap.,	10μF	16V		
R320	1	1	1	RT05563140	Resistor,	56kΩ	±5%	1/4W		C147	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%		
R321	1	1	1	RT05222140	Resistor,	2.2kΩ	±5%	1/4W		C148	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R322	1	1	1	RT05222140	Resistor,	2.2kΩ	±5%	1/4W		C149	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%		
R323	1	1	1	RT05622140	Resistor,	6.2kΩ	±5%	1/4W		C150	1	1	1	DD16101010	Ceramic Cap.,	100pF	±10%		
R324	1	1	1	RT05622140	Resistor,	6.2kΩ	±5%	1/4W		C151	1	1	1	DK18203020	Ceramic Cap.,	0.02μF	±10%		
R325	1	1	1	RT052224140	Resistor,	220kΩ	±5%	1/4W		C152	1	1	1	EA10505090	Electrolytic Cap.,	1μF	50V		
R326	1	1	1	RT052224140	Resistor,	220kΩ	±5%	1/4W		C153	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%		
R327	1	1	1	RT05152140	Resistor,	1.5kΩ	±5%	1/4W											

U: For U.S.A.
C: For Canada
E: For Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION			REF. DESIG.	Q'TY			PART NO.	DESCRIPTION						
	U	C	E						U	C	E								
C154	1	1	1	DD15250020	Ceramic Cap.,	25pF	±5%	L301	1	1	1	LC22260040	Choke Coil,	22 mH					
C202	1	1	1	DF65351010	Film Cap.,	350pF	±5%	L302	1	1	1	LC22260040	Choke Coil,	22 mH					
C203	1	1	1	DD15200010	Ceramic Cap.,	20pF	±5%	L303	1	1	1	LC24760010	Choke Coil,	47 mH					
C204	1	1	1	DF17103010	Film Cap.,	0.01μF	±20%	L304	1	1	1	LC24760010	Choke Coil,	47 mH					
C205	1	1	1	DF17103010	Film Cap.,	0.01μF	±20%	F101	1	1	1	FF11070050	Ceramic Filter,	SFE 10.7 MD-1					
C206	1	1	1	DF17103010	Film Cap.,	0.01μF	±20%	F102	1	1	1	FF11070050	Ceramic Filter,	SFE 10.7 MD-1					
C207	1	1	1	EA10505090	Electrolytic Cap.,	1μF	50V	H101	1	1	1	HF200551D0	FET,	2SK55					
C208	1	1	1	EA47503510	Electrolytic Cap.,	4.7μF	35V	H102	1	1	1	HT310471B0	Transistor,	2SC1047					
C209	1	1	1	EA33505090	Electrolytic Cap.,	3.3μF	50V	H103	1	1	1	HT304611B0	Transistor,	2SC461					
C210	1	1	1	DK17102010	Ceramic Cap.,	0.001μF	±20%	H104	1	1	1	HT308291C0	Transistor,	2SC829					
C211	1	1	1	DF16822010	Film Cap.,	0.0082μF	±10%	H105	1	1	1	HT310472B0	Transistor,	2SC1047					
C212	1	1	1	DF17103010	Film Cap.,	0.01μF	±20%	H106	1	1	1	HT308291C0	Transistor,	2SC829					
C213	1	1	1	EA10701690	Electrolytic Cap.,	100μF	16V	H107	1	1	1	HT308291C0	Transistor,	2SC829					
C214	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%	H108	1	1	1	HT308291D0	Transistor,	2SC829					
C215	1	1	1	EV22403560	Electrolytic Cap.,	0.22μF	35V	H109	1	1	1	HT308291B0	Transistor,	2SC829					
C216	1	1	1	EA10701690	Electrolytic Cap.,	100μF	16V	H110	1	1	1	HT308281C0	Transistor,	2SC828					
C217	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	±10%	H111	1	1	1	HT308281C0	Transistor,	2SC828					
C218	1	1	1	DK17103010	Ceramic Cap.,	0.01μF	±20%	H112	1	1	1	HD10003020	Diode,	20A90					
C219	1	1	1	DD15250020	Ceramic Cap.,	25pF	±5%	H113	1	1	1	HD10003020	Diode,	20A90					
C301	1	1	1	EA10601690	Electrolytic Cap.,	10μF	16V	H114	1	1	1	HD20011050	Diode,	1S1555					
C302	1	1	1	DF16222010	Film Cap.,	0.0022μF	±10%	H115	1	1	1	HD20011050	Diode,	1S1555					
C303	1	1	1	DF55471010	Film Cap.,	470pF	±5%	H116	1	1	1	HD10003020	Diode,	20A90					
C304	1	1	1	EQ22405010	Electrolytic Cap.,	0.22μF	50V	H117	1	1	1	HD10003020	Diode,	20A90					
C305	1	1	1	EQ47405010	Electrolytic Cap.,	0.47μF	50V	H118	1	1	1	HD10003020	Diode,	20A90					
C306	1	1	1	EQ22405010	Electrolytic Cap.,	0.22μF	50V	H119	1	1	1	HD10003020	Diode,	20A90					
C307	1	1	1	DF17473010	Film Cap.,	0.047μF	±20%	H201	1	1	1	HC10003010	IC,	HA1151					
C310	1	1	1	EA22701690	Electrolytic Cap.,	220μF	16V	H301	1	1	1	HC10004010	IC,	HA1156					
C311	1	1	1	DF16392010	Film Cap.,	0.0039μF	±10%	H302	1	1	1	HT105641B0	Transistor,	2SA564					
C312	1	1	1	DF16392010	Film Cap.,	0.0039μF	±10%	H303	1	1	1	HT308281C0	Transistor,	2SC828					
C313	1	1	1	DF15332010	Film Cap.,	0.0033μF	±5%	H304	1	1	1	HT308281C0	Transistor,	2SC828					
C314	1	1	1	DF15332010	Film Cap.,	0.0033μF	±5%	H305	1	1	1	HT308281C0	Transistor,	2SC828					
C315	1	1	1	DF16332010	Film Cap.,	0.0033μF	±10%	H306	1	1	1	HT105641B0	Transistor,	2SA564					
C316	1	1	1	DF16332010	Film Cap.,	0.0033μF	±10%	H307	1	1	1	HT105641B0	Transistor,	2SA564					
C317	1	1	1	DD15361010	Film Cap.,	360pF	±5%	J101	1	1	1	YP10001140	Plug						
C318	1	1	1	DD15361010	Film Cap.,	360pF	±5%	J102	1	1	1	YP10001140	Plug						
C319	1	1	1	DF55821010	Film Cap.,	820pF	±5%	J105	1	1	1	YP10001140	Plug						
C320	1	1	1	DF55821010	Film Cap.,	820pF	±5%	J126	1	1	1	YP10001140	Plug						
C321	1	1	1	DF15682010	Film Cap.,	6800pF	±5%	J131	1	1	1	YP10001140	Plug						
C321	1	1	1	DF15472010	Film Cap.,	4700pF	±5%	J132	1	1	1	YP10001140	Plug						
C322	1	1	1	DF15462010	Film Cap.,	4700pF	±5%	1102	1	1	1	2821109010	Shield						
C323	1	1	1	EV47403560	Electrolytic Cap.,	0.47μF	30V	1103	1	1	1	3896109030	Shield						
C324	1	1	1	EV47403560	Electrolytic Cap.,	0.47μF	30V	1104	1	1	1	2850109020	Shield						
C325	1	1	1	EV47403560	Electrolytic Cap.,	0.47μF	30V	1302	2	2	2	62030039W0	Lug						
C326	1	1	1	EV47403560	Electrolytic Cap.,	0.47μF	30V	P400 EQL. AMP. BOARD											
L101	1	1	1	LA12026120	FM Ant. Coil			P400	1	1	1	YD29561040	P.W. Board						
L102	1	1	1	LA12026100	FM RF Coil				1	1	1	ZZ29561040	P.W. Board Assembly						
L103	1	1	1	LO12036010	FM Osc. Coil			P408	2	2	2	2933118020	Spacer						
L104	1	1	1	LC17510010	Choke Coil,	0.75mH		R401	1	1	1	RT05102140	Resistor,	1kΩ ±5%	1W				
L105	1	1	1	LI10016010	FM IFT			R402	1	1	1	RT05102140	Resistor,	1kΩ ±5%	1W				
L106	1	1	1	LI14016230	FM IFT			R403	1	1	1	RT05511140	Resistor,	510Ω ±5%	1W				
L107	1	1	1	LI10156020	FM IFT			R404	1	1	1	RT05511140	Resistor,	510Ω ±5%	1W				
L202	1	1	1	LO10010490	AM Osc. Coil			R405	1	1	1	RT05623140	Resistor,	62kΩ ±5%	1W				
L203	1	1	1	LI10280030	AM IFT			R406	1	1	1	RT05623140	Resistor,	62kΩ ±5%	1W				
L204	1	1	1	LI10010640	AM IFT			R407	1	1	1	RN05274140	Resistor,	270kΩ ±5%	1W				
L206	1	1	1	LC21050010	Choke Coil,	1 mH		R408	1	1	1	RN05274140	Resistor,	270kΩ ±5%	1W				

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION					REF. DESIG.	Q'TY			PART NO.	DESCRIPTION					
	U	C	E								U	C	E							
R409	1	1	1	RTN05184140	Resistor,	180kΩ	±5%	1/4W		R708	1	1	1	RT05393140	Resistor,	39kΩ	±5%	1/4W		
R410	1	1	1	RTN05184140	Resistor,	180kΩ	±5%	1/4W		R709	1	1	1	RT05154140	Resistor,	150kΩ	±5%	1/4W		
R411	1	1	1	RN05274140	Resistor,	270kΩ	±5%	1/4W		R710	1	1	1	RT05154140	Resistor,	150kΩ	±5%	1/4W		
R412	1	1	1	RN05274140	Resistor,	270kΩ	±5%	1/4W		R711	1	1	1	RT05562140	Resistor,	5.6kΩ	±5%	1/4W		
R413	1	1	1	RT05223140	Resistor,	22kΩ	±5%	1/4W		R712	1	1	1	RT05562140	Resistor,	5.6kΩ	±5%	1/4W		
R414	1	1	1	RT05223140	Resistor,	22kΩ	±5%	1/4W		R713	1	1	1	RT05391140	Resistor,	390Ω	±5%	1/4W		
R415	1	1	1	RT05681140	Resistor,	680Ω	±5%	1/4W		R714	1	1	1	RT05391140	Resistor,	390Ω	±5%	1/4W		
R416	1	1	1	RT05681140	Resistor,	680Ω	±5%	1/4W		R715	1	1	1	RT05101140	Resistor,	100Ω	±5%	1/4W		
R417	1	1	1	RT05473140	Resistor,	47kΩ	±5%	1/4W		R716	1	1	1	RT05101140	Resistor,	100Ω	±5%	1/4W		
R418	1	1	1	RT05473140	Resistor,	47kΩ	±5%	1/4W		R717	1	1	1	RT05272140	Resistor,	2.7kΩ	±5%	1/4W		
R419	1	1	1	RT05223140	Resistor,	22kΩ	±5%	1/4W		R718	1	1	1	RT05272140	Resistor,	2.7kΩ	±5%	1/4W		
R420	1	1	1	RT05223140	Resistor,	22kΩ	±5%	1/4W		R719	1	1	1	RT05391140	Resistor,	390Ω	±5%	1/4W		
R421	1	1	1	RT05221140	Resistor,	220Ω	±5%	1/4W		R720	1	1	1	RT05391140	Resistor,	390Ω	±5%	1/4W		
R422	1	1	1	RT05184140	Resistor,	180kΩ	±5%	1/4W		R721	1	1	1	RT05682140	Resistor,	6.8kΩ	±5%	1/4W		
C401	1	1	1	EV33502560	Electrolytic Cap.,	3.3μF	25V			R722	1	1	1	RT05682140	Resistor,	6.8kΩ	±5%	1/4W		
C402	1	1	1	EV33502560	Electrolytic Cap.,	3.3μF	25V			R723	1	1	1	RT05822140	Resistor,	8.2kΩ	±5%	1/4W		
C403	1	1	1	DD16101010	Ceramic Cap.,	100PF	±10%			R724	1	1	1	RT05822140	Resistor,	8.2kΩ	±5%	1/4W		
C404	1	1	1	DD16101010	Ceramic Cap.,	100PF	±10%			R725	1	1	1	RT05362140	Resistor,	3.6kΩ	±5%	1/4W		
C405	1	1	1	EA10701090	Electrolytic Cap.,	100μF	15V			R726	1	1	1	RT05362140	Resistor,	3.6kΩ	±5%	1/4W		
C406	1	1	1	EA10701090	Electrolytic Cap.,	100μF	15V			R727	1	1	1	RA01020210	Trimming Resistor,	1kΩ	(B)			
C407	1	1	1	DK17102010	Ceramic Cap.,	0.001μF	±20%			R728	1	1	1	RA01020210	Trimming Resistor,	1kΩ	(B)			
C408	1	1	1	DK17102010	Ceramic Cap.,	0.001μF	±20%			R729	1	1	1	RT05100140	Resistor,	10Ω	±5%	1/4W		
C409	1	1	1	DF15123010	Film Cap.,	0.012μF	±5%			R730	1	1	1	RT05100140	Resistor,	10Ω	±5%	1/4W		
C410	1	1	1	DF15123010	Film Cap.,	0.012μF	±5%			R731	1	1	1	GF05471140	Resistor,	470Ω	±5%	1/4W		
C411	1	1	1	DF15332010	Film Cap.,	0.0033μF	±5%			R732	1	1	1	GF05471140	Resistor,	470Ω	±5%	1/4W		
C412	1	1	1	DF15332010	Film Cap.,	0.0033μF	±5%			R733	1	1	1	GF05100140	Resistor,	10Ω	±5%	1/4W		
C413	1	1	1	EA10505090	Electrolytic Cap.,	1μF	50V			R734	1	1	1	GF05100140	Resistor,	10Ω	±5%	1/4W		
C415	1	1	1	EE10505050	Electrolytic Cap.,	1μF	50V			R735	1	1	1	GX10222030	Resistor,	0.22Ω	±10%	3W		
C416	1	1	1	EE10505050	Electrolytic Cap.,	1μF	50V			R736	1	1	1	GX10222030	Resistor,	0.22Ω	±10%	3W		
C417	1	1	1	EA10703590	Electrolytic Cap.,	100μF	35V			R737	1	1	1	GX10222030	Resistor,	0.22Ω	±10%	3W		
H401	1	1	1	HC10011050	IC,			TA7129P		R738	1	1	1	GX10222030	Resistor,	0.22Ω	±5%	3W		
H407	1	1	1	HC10011050	IC,			TA7129P		R739	1	1	1	RC10100120	Resistor,	10Ω	±10%	1/4W		
J401	~	8	8	YP10001130	Plug					R740	1	1	1	RC10100120	Resistor,	10Ω	±10%	1/4W		
J408										R741	1	1	1	RC10022120	Resistor,	2.2Ω	±10%	1/4W		
1602	1	1	1	2956005010	Clamper					R742	1	1	1	RC10022120	Resistor,	2.2Ω	±10%	1/4W		
1603	2	2	2	2874118013	Spacer					R743	1	1	1	RT05103140	Resistor,	10kΩ	±5%	1/4W		
1604	2	2	2	51100312A9	B.H.M. Screw,			B3 x 12		R744	1	1	1	RT05103140	Resistor,	10kΩ	±5%	1/4W		
1605	2	2	2	54040302A0	Spring Washer					R745	1	1	1	RC10102120	Resistor,	1kΩ	±10%	1/4W		
1608	1	1	1	3917118012	Spacer					R746	1	1	1	RC10102120	Resistor,	1kΩ	±10%	1/4W		
1610	4	4	4	51380306PO	P.H. Tapped Screw, P3 x 6					C701	1	1	1	EV10502560	Electrolytic Cap.,	1μF	25V			
1802	1	1	1	3899267012	Heatsink					C702	1	1	1	EV10502560	Electrolytic Cap.,	1μF	25V			
1805	2	2	2	2956160040	Bracket					C703	1	1	1	EA47605090	Electrolytic Cap.,	47μF	50V			
1806	4	4	4	51380306PO	P.H. Tapped Screw, P3 x 6					C704	1	1	1	EA47605090	Electrolytic Cap.,	47μF	50V			
P700 MAIN AMP. BOARD																				
P700	1	1	1	YD29561010	P.W. Board					C705	1	1	1	EE10703550	Electrolytic Cap.,	100μF	35V			
	1	1	1	ZZ22211010	P.W. Board Assembly					C706	1	1	1	EE10703550	Electrolytic Cap.,	100μF	35V			
P708	8	8	8	2933118020	Spacer					C707	1	1	1	EA10703590	Electrolytic Cap.,	100μF	35V			
R701	1	1	1	RT05104140	Resistor,	100kΩ	±5%	1/4W		C708	1	1	1	EA10703590	Electrolytic Cap.,	100μF	35V			
R702	1	1	1	RT05104140	Resistor,	100kΩ	±5%	1/4W		C709	1	1	1	EA10701090	Electrolytic Cap.,	100μF	10V			
R703	1	1	1	RT05102140	Resistor,	1kΩ	±5%	1/4W		C710	1	1	1	EA10701090	Electrolytic Cap.,	100μF	10V			
R704	1	1	1	RT05102140	Resistor,	1kΩ	±5%	1/4W		C711	1	1	1	DD16100010	Ceramic Cap.,	10pF	±10%			
R705	1	1	1	RT05154140	Resistor,	150kΩ	±5%	1/4W		C712	1	1	1	DD16100010	Ceramic Cap.,	10pF	±10%			
R706	1	1	1	RT05154140	Resistor,	150kΩ	±5%	1/4W		C713	1	1	1	DD16500010	Ceramic Cap.,	50pF	±10%			
R707	1	1	1	RT05393140	Resistor,	39kΩ	±5%	1/4W		C714	1	1	1	DD16500010	Ceramic Cap.,	50pF	±10%			
										C715	1	1	1	DD16151010	Ceramic Cap.,	150pF	±10%			
										C716	1	1	1	DD16151010	Ceramic Cap.,	150pF	±10%			
										C717	1	1	1	DD16101010	Ceramic Cap.,	100pF	±10%			
										C718	1	1	1	DD16101010	Ceramic Cap.,	100pF	±10%			
										H715	~	1	1	1	HD20005010	Diode				
										H718	1	1	1			W06B				

U: For U.S.A.
C: For Canada
E: For Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION			REF. DESIG.	Q'TY			PART NO.	DESCRIPTION		
	U	C	E						U	C	E				
C719	1	1	1	DF16104050	Ceramic Cap.,	0.1 μ F	$\pm 10\%$	C808	1	1	1	EA10705090	Electrolytic Cap.,	100 μ F	50V
C720	1	1	1	DF16104050	Ceramic Cap.,	0.1 μ F	$\pm 10\%$	C809	1	1	1	DK18403010	Ceramic Cap.,	0.04 μ F	$\pm 20\%$
C721	1	1	1	EB33803550	Electrolytic Cap.,	3300 μ F	35V	C810	1	1	1	EA47701690	Electrolytic Cap.,	470 μ F	16V
C722	1	1	1	EB33803550	Electrolytic Cap.,	3300 μ F	35V	H801	1	1	1	HT314072B0	Transistor,	2SC1407	Q or R
C723	1	1	1	EA10505090	Electrolytic Cap.,	1 μ F	50V	H802	1	1	1	HD20009010	Diode,	U05B	
C724	1	1	1	EA10505090	Electrolytic Cap.,	1 μ F	50V	H803	1	1	1	HD20009010	Diode,	U05B	
L701	1	1	1	LC22720010	Choke Coil,	2.7 μ H	$\pm 20\%$	H804	1	1	1	HD20009010	Diode,	U05B	
L702	1	1	1	LC22720010	Choke Coil,	2.7 μ H	$\pm 20\%$	H805	1	1	1	HD20009010	Diode,	U05B	
M701	1	1	1	IN10060350	Lamp,	6V Lamp	H806	1	1	1	HD20005010	Diode,	W06B		
M702	1	1	1	IN10060350	Lamp,	6V Lamp	H807	1	1	1	HD20005010	Diode,	W06B		
J701	9	9	9	YP10001130	Plug			H808	1	1	1	HD20005010	Diode,	W06B	
J709								H809	1	1	1	HD30027090	Diode,	WZ140	
R747	1	1	1	RC00000120	Resistor,	0 Ω		J801	15	15	15	YP10001130	Plug		
R748	1	1	1	RC00000120	Resistor,	0 Ω		J815							
R749	1	1	1	RC00000120	Resistor,	0 Ω		2502	1	1	1	2915160504	Bracket, K		
R750	1	1	1	RC00000120	Resistor,	0 Ω		2509	2	2	2	51100306A9	B.H.M. Screw,	B3 x 6	
R751	1	1	1	RC00000120	Resistor,	0 Ω		2513	1	1	1	2818160032	Bracket		
R752	1	1	1	RC00000120	Resistor,	0 Ω		2514	1	1	1	2818160042	Bracket		
H701	1	1	1	HT105641K0	Transistor,	2SA564 A		2515	4	4	4	51100405A9	B.H.M. Screw,	B4 x 5	
H702	1	1	1	HT105641K0	Transistor,	2SA564 A		2519	4	4	4	51100306A9	B.H.M. Screw,		
H703	1	1	1	HT313842C0	Transistor,	2SC1384 R or S		2520	2	2	2	51100306A9	B.H.M. Screw,	B3 x 6	
H704	1	1	1	HT313842C0	Transistor,	2SC1384 R or S		2525	2	2	2	51100306A9	B.H.M. Screw,		
H705	1	1	1	HT308281D0	Transistor,	2SC828 S		2526	1			2956120010	Insulator		
H706	1	1	1	HT308281D0	Transistor,	2SC828 S		2530	2	2	2	51470306A9	B.H.M. Screw,	B3 x 6	
H707	1	1	1	HT313842B0	Transistor,	2SC1384 Q or R		2532	2	2	2	2886120020	Insulator		
H708	1	1	1	HT313842B0	Transistor,	2SC1384 Q or R		2533	2	2	2	2916120012	Insulator		
H709	1	1	1	HT106842B0	Transistor,	2SA684 Q or R		2602	2	2	2	51570306B0	P.H. Tapped Screw, P3 x 6		
H710	1	1	1	HT106842B0	Transistor,	2SA684 Q or R		2603	2	2	2	54050300R0	T.L. Washer, OR		
H711	1	1	1	HT403131D0	Transistor,	2SD313 D or E		2607	1	1	1	2577106020	Bearing		
H712	1	1	1	HT403131D0	Transistor,	2SD313 D or E		2608	1	1	1	1415118010	Spacer		
H713	1	1	1	HT205071D0	Transistor,	2SB507 D or E		2609	2	2	2	51040306A9	F.H.M. Screw, F3 x 6		
H714	1	1	1	HT205071D0	Transistor,	2SB507 D or E		2611	2	2	2	51570306B0	P.H. Tapped Screw, P3 x 6		
2221	1	1	1	2956160020	Bracket			2613	1	1	1	2956262520	Pulley, K		
2222	1	1	1	2956160030	Bracket			2617	2	2	2	51100305A9	B.H.M. Screw, B3 x 5		
2224	4	4	4	51100312S9	B.H.M. Screw,	B3 x 12		2621	1	1	1	2819120050	Insulator		
					P800 POWER SUPPLY BOARD			2623	1	1	1	2853269010	Protector		
P800	1	1	1	YD29561030	P.W. Board			2624	2	2	2	51570305B0	P.H. Tapped Screw, P3 x 5		
	1	1	1	ZZ29561030	P.W. Board Assembly			2626	1	1	1	2871053020	Cover		
P809	10	10	10	2933118010	Spacer			2628	1	1	1	2871051020	Guide		
P808	12	12	12	2933118020	Spacer			2630	2	2	2	51042608A0	F.H.M. Screw, F2.6 x 8		
R801	1	1	1	GJ05331030	Resistor,	330 Ω	$\pm 5\%$	2632	2	2	2	2927055020	Collar		
R802	1	1	1	GJ05221020	Resistor,	220 Ω	$\pm 5\%$	PZ01	1	1	1	YD28860160	PZ01 DIAL LAMP BOARD		
R803	1	1	1	GF05560120	Resistor,	56 Ω	$\pm 5\%$		1	1	1	ZZ28891160	P.W. Board		
R804	1	1	1	RT05183140	Resistor,	18k Ω	$\pm 5\%$	MZ01	5	5	5	IN10080070	P.W. Board Assembly		
R805	1	1	1	RT05104140	Resistor,	100k Ω	$\pm 5\%$								
R806	1	1	1	GF05100120	Resistor,	10 Ω	$\pm 5\%$	MZ05							
R807	1	1	1	GF05330120	Resistor,	33 Ω	$\pm 5\%$	JZ01	10	10	10	YJ08000170	Socket		
C801	1	1	1	DK18103510	Ceramic Cap.,	0.01 μ F	$\pm 20\%$	JZ10							
C802	1	1	1	DK18103510	Ceramic Cap.,	0.01 μ F	$\pm 20\%$	JZ11	4	4	4	YP10001130	Plug		
C803	1	1	1	EB47805510	Electrolytic Cap.,	4700 μ F	55V	JZ14							
C804	1	1	1	EA33705090	Electrolytic Cap.,	330 μ F	50V	3302	1	1	1	2871274110	Reflector		
C805	1	1	1	EA33703590	Electrolytic Cap.,	330 μ F	35V								
C806	1	1	1	EA22701690	Electrolytic Cap.,	220 μ F	16V								
C807	1	1	1	EA22705090	Electrolytic Cap.,	220 μ F	50V								

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION		
	U	C	E				
3304	1	1	1	2871271010	Holder		
3305	2	2	2	51570306B0	P.H. Tapped Screw, P3 x 6		
3307	2	2	2	51480306A9	B.H.M. Screw F, B3 x 6		
3403	1	1	1	1382005030	Clamper		
3503	1	1	1	2853106500	Bearing, K		
3508	1	1	1	51640410D9	Set Screw C.P.		
3509	1	1	1	54040402N0	Spring Washer		
3510	1	1	1	53110403E9	Hexagon Nut		
R007	1	1	1	RX05040020	Variable Resistor, Balance		
					PT01 MONITOR SWITCH BOARD		
PT01	1	1	1	YD29561050	P.W. Board		
	1	1	1	ZZ29561050	P.W. Board Assembly		
RT01	1	1	1	RT05153140	Resistor, 15kΩ ±5% 1/4W		
RT02	1	1	1	RT05153140	Resistor, 15kΩ ±5% 1/4W		
RT03	1	1	1	RT05683140	Resistor, 68kΩ ±5% 1/4W		
RT04	1	1	1	RT05683140	Resistor, 68kΩ ±5% 1/4W		
RT05	1	1	1	RC00000120	Resistor, 0Ω		
RT06	1	1	1	RC00000120	Resistor, 0Ω		
CT01	1	1	1	DF16273050	Film Cap., 0.027μF		
CT02	1	1	1	DF16273050	Film Cap., 0.027μF		
CT03	1	1	1	DD16121010	Ceramic Cap., 120pF		
CT04	1	1	1	DD16121010	Ceramic Cap., 120pF		
JT01	1	1	1	YP10001130	Plug		
JT11	1	1	1	SP02020080	Push Switch		
					PH01 MUTING & FILTER BOARD		
PH01	1	1	1	YD29561060	P.W. Board		
	1	1	1	ZZ29561060	P.W. Board Assembly		
RH01	1	1	1	RT05472140	Resistor, 47kΩ ±5% 1/4W		
RH02	1	1	1	RT05472140	Resistor, 47kΩ ±5% 1/4W		
RH03	1	1	1	RT05225140	Resistor, 2.2MΩ ±5% 1/4W		
RH04	1	1	1	RT05225140	Resistor, 2.2MΩ ±5% 1/4W		
CH01	1	1	1	DF16682050	Film Cap., 0.0068μF		
CH02	1	1	1	DF16682050	Film Cap., 0.0068μF		
SH01	1	1	1	SP02020080	Push Switch		
JH01	1	1	1	YP10001130	Plug		
JH07	1	1	1	SP02010150	Push Switch, Power		
S003	1	1	1	BF10400040	Printed Comp., 0.1μF		
G001	1	1	1	DF17473510	Film Cap., 0.047μF		
C005	1	1	1	DF17473590	Film Cap., 0.047μF		
3918	1	1	1	2915160050	Bracket		
3921	2	2	2	51060306A9	P.H.M. Screw, P3 x 6		
3925	1	1	1	2882109010	Shield		
J007	1	1	1	YJ01000980	Socket, Headphone		
R002	1	1	1	GF05151120	Resistor, 150Ω ±5% 1/4W		
R003	1	1	1	GF05151120	Resistor, 150Ω ±5% 1/4W		
4112	1	1	1	2915160060	Bracket		

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION		
	U	C	E				
R006	1	1	1	RM02540220	Variable Resistor, Master Vol.		
S001	1	1	1	SR10050110	Rotary Switch, Selector		
R001	1	1	1	GF05102120	Resistor, 1kΩ ±5% 1/4W		
S002	1	1	1	SR02040070	Rotary Switch, Speaker		
R004	1	1	1	GJ05331010	Resistor, 330Ω ±5% 1/4W		
R005	1	1	1	GJ05331010	Resistor, 330Ω ±5% 1/4W		
					PE01 TONE AMP. BOARD		
PE01	1	1	1	YD29561020	P.W. Board		
	1	1	1	ZZ29561020	P.W. Board Assembly		
PE08	2	2	2	2933118020	Spacer		
RE01	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% 1/4W		
RE02	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% 1/4W		
RE03	1	1	1	RT05474140	Resistor, 470kΩ ±5% 1/4W		
RE04	1	1	1	RT05474140	Resistor, 470kΩ ±5% 1/4W		
RE05	1	1	1	RT05102140	Resistor, 1kΩ ±5% 1/4W		
RE06	1	1	1	RT05102140	Resistor, 1kΩ ±5% 1/4W		
RE07	1	1	1	RT05223140	Resistor, 22kΩ ±5% 1/4W		
RE08	1	1	1	RT05222140	Resistor, 2.2kΩ ±5% 1/4W		
RE09	1	1	1	RN05105140	Resistor, 1MΩ ±5% 1/4W		
RE10	1	1	1	RN05105140	Resistor, 1MΩ ±5% 1/4W		
RE11	1	1	1	RT05683140	Resistor, 68kΩ ±5% 1/4W		
RE12	1	1	1	RT05683140	Resistor, 68kΩ ±5% 1/4W		
RE13	1	1	1	RT05102140	Resistor, 1kΩ ±5% 1/4W		
RE14	1	1	1	RT05102140	Resistor, 1kΩ ±5% 1/4W		
RE15	1	1	1	RT05752140	Resistor, 7.5kΩ ±5% 1/4W		
RE16	1	1	1	RT05752140	Resistor, 7.5kΩ ±5% 1/4W		
RE17	1	1	1	RT05102140	Resistor, 1kΩ ±5% 1/4W		
RE18	1	1	1	RT05102140	Resistor, 1kΩ ±5% 1/4W		
RE19	1	1	1	RT05224140	Resistor, 220kΩ ±5% 1/4W		
RE20	1	1	1	RT05224140	Resistor, 220kΩ ±5% 1/4W		
RE21	1	1	1	RT05223140	Resistor, 22kΩ ±5% 1/4W		
RE22	1	1	1	RT05223140	Resistor, 22kΩ ±5% 1/4W		
RE23	1	1	1	RT05203140	Resistor, 20kΩ ±5% 1/4W		
RE24	1	1	1	RT05203140	Resistor, 20kΩ ±5% 1/4W		
RE25	1	1	1	RT05273140	Resistor, 27kΩ ±5% 1/4W		
RE26	1	1	1	RT05273140	Resistor, 27kΩ ±5% 1/4W		
RE27	1	1	1	RT05682140	Resistor, 6.8kΩ ±5% 1/4W		
RE28	1	1	1	RT05682140	Resistor, 6.8kΩ ±5% 1/4W		
RE29	1	1	1	RT05822140	Resistor, 8.2kΩ ±5% 1/4W		
RE30	1	1	1	RT05822140	Resistor, 8.2kΩ ±5% 1/4W		
RE31	1	1	1	RT05123140	Resistor, 12kΩ ±5% 1/4W		
RE32	1	1	1	RT05123140	Resistor, 12kΩ ±5% 1/4W		
RE33	1	1	1	RM01040050	Variable Resistor, 100kΩ (B)		
RE34	1	1	1	RM01040050	Variable Resistor, 100kΩ (B)		
RE35	1	1	1	RT05225140	Resistor, 2.2MΩ ±5% 1/4W		
RE36	1	1	1	RT05225140	Resistor, 2.2MΩ ±5% 1/4W		
RE37	1	1	1	RT05683140	Resistor, 68kΩ ±5% 1/4W		
RE38	1	1	1	RT05683140	Resistor, 68kΩ ±5% 1/4W		
RE39	1	1	1	RT05103140	Resistor, 10kΩ ±5% 1/4W		
RE40	1	1	1	RT05103140	Resistor, 10kΩ ±5% 1/4W		
RE41	1	1	1	RT05101140	Resistor, 100Ω ±5% 1/4W		
RE42	1	1	1	RT05101140	Resistor, 100Ω ±5% 1/4W		
RE43	1	1	1	RT05104140	Resistor, 100kΩ ±5% 1/4W		
RE44	1	1	1	RT05104140	Resistor, 100kΩ ±5% 1/4W		
RE45	1	1	1	RT05101140	Resistor, 100Ω ±5% 1/4W		

U: For U.S.A.
C: For Canada
E: For Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION				REF. DESIG.	Q'TY			PART NO.	DESCRIPTION			
	U	C	E							U	C	E					
CE01	1	1	1	DF17224050	Film Cap.,	0.22μF	±20%	50V	5619			1	62030039W0	Lug			
CE02	1	1	1	DF17224050	Film Cap.,	0.22μF	±20%	50V	J002	1	1	1	YL01020030	Terminal, 2P			
CE03	1	1	1	EE10505010	Electrolytic Cap.,	1μF	±20%	50V	J004	1	1	1	YT02040080	Terminal, Aux, Phono			
CE04	1	1	1	EE10505010	Electrolytic Cap.,	1μF	±20%	50V	J006	1	1	1	YT01010050	Terminal, Ground			
CE05	1	1	1	DF16223050	Film Cap.,	0.022μF	±10%	50V	J008	1	1	1	YT03040060	Terminal, Spk			
CE06	1	1	1	DF16223050	Film Cap.,	0.022μF	±10%	50V	J009	1	1	1	YT03040060	Terminal, Spk			
CE07	1	1	1	DF16223050	Film Cap.,	0.022μF	±10%	50V	J011	1	1	1	YJ040000560	Jack, AC Outlet			
CE08	1	1	1	DF16223050	Film Cap.,	0.022μF	±10%	50V	J012	1	1	1	YJ08000120	Socket, Fuse Holder			
CE09	1	1	1	DF16102050	Film Cap.,	0.001μF	±10%	50V	J012	1	1	1	YJ08000220	Socket, Fuse Holder			
CE10	1	1	1	DF16102050	Film Cap.,	0.001μF	±10%	50V	F001	1	1	1	FS10200060	Fuse			
CE11	1	1	1	EE10505010	Electrolytic Cap.,	1μF	±20%	50V	F001	1	1	1	FS10160020	Fuse			
CE12	1	1	1	EE10505010	Electrolytic Cap.,	1μF	±20%	50V	F002			1	FS20200910	Fuse			
CE13	1	1	1	EE47502510	Electrolytic Cap.,	4.7μF	±20%	25V	W001	1	1	1	YC02400220	AC Cord			
CE14	1	1	1	EE47502510	Electrolytic Cap.,	4.7μF	±20%	25V	6005	1	1	1	2819271130	Holder			
CE15	1	1	1	EQ47501610	Electrolytic Cap.,	4.7μF	±30%	16V	6006	1	1	1	2578160522	Bracket, K			
CE16	1	1	1	EQ47501610	Electrolytic Cap.,	4.7μF	±30%	16V	6011	2	2	2	51280312U0	B.H. Tapped Screw B, B3 x 12			
CE17	1	1	1	EA10705090	Electrolytic Cap.,	100μF	±5%	50V	6016	2	2	2	51280312U0	B.H. Tapped Screw B, B3 x 12			
HE01	1	1	1	HT313282A0	Transistor,	2SC1328	S or T		L002	1	1	1	LF11200480	Ant. Coil, AM			
HE02	1	1	1	HT313282A0	Transistor,	2SC1328	S or T		L004	1	1	1	LC13320020	Choke Coil, 3.3μH			
HE03	1	1	1	HT107223A0	Transistor,	2SA722	S, T, U		6102			1	3188271020	Holder			
HE04	1	1	1	HT107223A0	Transistor,	2SA722	S, T, U		6202	1	1	1	62030039W0	Lug			
HE05	1	1	1	HT313281T0	Transistor,	2SC1328	T		J001	1	1	1	YT01040150	Terminal, Ant.			
HE06	1	1	1	HT313281T0	Transistor,	2SC1328	T		L001	1	1	1	LC11540040	Choke Coil, 150μH			
JE01	10	10	10	YP10001130	Plug				6302	1	1	1	62030039W0	Lug			
JE10									J003	1	1	1	YT02010090	Terminal, Quad. Out			
5002	1	1	1	62030039W0	Lug				J005	1	1	1	YT02040080	Terminal, Tape Monitor			
5102	1	1	1	2915160040	Bracket				6502	1	1	1	62041760W0	Lug			
5106	1	1	1	2912259010	Bushing				6504	1	1	1	62030039W0	Lug			
M001	1	1	1	IN10080340	Lamp, Stereo				C001	1	1	1	DK17103010	Ceramic Cap., 0.01μF ±20%			
M004	1	1	1	IM11042260	Meter, Tuning				C002	1	1	1	DK17103010	Ceramic Cap., 0.01μF ±20%			
C004	1	1	1	EA47601090	Electrolytic Cap.,	47μF	10V		6521	1	1	1	62030039W0	Lug			
5306	1	1	1	2886107010	Sheet				R008	1	1	1	RC10225120	Resistor, 2.2MΩ ±10% ½W			
5402	1	1	1	2854274013	Reflector				7002	1	1	1	2221302010	Dial			
5405	1	1	1	2956262502	Pulley, K				7202	2	2	2	1382005030	Clamper			
5411	1	1	1	51480308A9	B.H.M. Screw, Holder	B3 x 8			7219	1	1	1	2871005010	Clamper			
5413	1	1	1	2854271010	P.H. Tapped Screw, P3 x 5										PR01 FUSE BOARD		
5415	1	1	1	51570305B0													
M003	1	1	1	IN10080070	Lamp, Meter				PR01			1	YD29601030	P.W. Board			
JO10	1	1	1	YJ08000190	Socket							1	ZZ29603030	P.W. Board Assembly			
5502	1	1	1	2221160210	Bracket				JR01			6	YJ08000200	Jack			
5504	1	1	1	2221160220	Bracket				JR06			6	YP10001130	Plug			
5515	2			51060316A9	P.H.M. Screw,	P3 x 16			JR07			6	BY03110010	Selector			
5516	2			53110303A9	Hexagon Nut				JR12			6	2956160070	Bracket			
5520	1	1	1	54050400R0	T.L. Washer, OR				JO13			1					
5524	4	4	4	51100308S9	B.H.M. Screw,	B3 x 8											
5525	4	4	4	53110303A9	Hexagon Nut												
5529	6	6	6	51100308S9	B.H.M. Screw,	B3 x 8											
5530	6	6	6	53110303A9	Hexagon Nut												
5533	2	2	2	51100308S9	B.H.M. Screw,	B3 x 8											
5534	1	1	1	53110303E9	Hexagon Nut												
5602	3	3	3	51100306S9	B.H.M. Screw,	B3 x 6											
5604	1	1	1	1455259030	Bushing												
5605	1		1	1455259070	Bushing												

REF. DESIG.	Q'TY U C E			PART NO.	DESCRIPTION
7608	1	1	1	51062606B0	P.H.M. Screw, P2.6 x 6
7902	4	4	4	2932057010	Lug
7903	4	4	4	51440410S9	P.H.M. Screw S, P4 x 10
7907	1	1	1	2886861010	Label, On Power Transformer
7908	1			9510221010	Label, Fuse Caution
7909	1			9510611020	Label, 2A 250V
7912	6	6	6	51280306U0	B.H. Tapped Screw B, B3 x 6
7914	2			51100308S9	B.H. Tapped Screw B, B3 x 6
7916	10	10	10	51570306B0	P.H. Tapped Screw, P3 x 6
7929	1	1	1	2956105507	Chassis, K
7932			1	2854160030	Bracket
7933			2	51570306B0	P.H. Tapped Screw, P3 x 6
8002	1	1	1	2889259010	Bushing
8006	4	4	4	51570306B0	P.H. Tapped Screw, P3 x 6
8009	2	2	2	2956160052	Bracket
8010	4	4	4	54020401A0	Flat Washer, P
8011	4	4	4	54040402A0	Spring Washer
8012	4	4	4	53110403A9	Hexagon Nut
8016	6	6	6	51280306U0	B.H. Tapped Screw B, B3 x 6
8017	1	1	1	59030810PO	Washer
8020	4	4	4	51570306S0	P.H. Tapped Screw, P3 x 6
8021	2	2	2	51570306S0	P.H. Tapped Screw, P3 x 6
8022	2	2		51100306S9	B.H.M. Screw, B3 x 6
8024	1			51570306B0	P.H. Tapped Screw, P3 x 6
8026	1	1	1	2927160050	Bracket
8027	1	1	1	51570306B0	P.H. Tapped Screw, P3 x 6
8028	1	1	1	2908259010	Bushing
8033	2	2	2	2956005022	Clamper
8034	2	2	2	51570306B0	P.H. Tapped Screw, P3 x 6
8102	1	1	1	2956262513	Pulley, K
8106	2	2	2	51570306B0	P.H. Tapped Screw, P3 x 6
8110	4	4	4	2886005060	Clamper
8111	4	4	4	2886005050	Clamper
8114	1	1	1	2910123010	Contactor
8115	1	1	1	51570306B0	P.H. Tapped Screw, P3 x 6
8116	1	1	1	54050300R0	T.L. Washer, OR
J016			1	YL01020030	Terminal
W001			1	YC01900030	AC Cord
L003	1	1		TS18603040	Power Transformer
L003			1	TS18603030	power Transformer
8130	6	6	6	51570306B0	P.H. Tapped Screw, P3 x 6
8132	2	2	2	51570306B0	P.H. Tapped Screw, P3 x 6
8134	1	1	1	51570306B0	P.H. Tapped Screw, P3 x 6
FR01			1	FS10400060	Fuse, 4A 20 mm
FR02			1	FS10100070	Fuse, 1A 20 mm
FR03			1	FS10100070	Fuse, 1A 20 mm
8307	4	4	4	51480406S9	B.H.M. Screw F, P4 x 6
8309	4	4	4	52017039J0	Bolt
8311	1	1	1	2927055010	Collar
8316	11	11	11	51100410S9	B.H.M. Screw, B4 x 10
8404	1	1	1	2221154112	Knob, Slide Vol.
8405	4	4	4	2221154122	Knob, Push Sw
8406	1	1	1	2904154140	Knob, Power Sw
8408	5	5	5	2221154133	Knob, Shaft
8419	1	1	1	2850112020	

REF. DESIG.	Q'TY U C E			PART NO.	DESCRIPTION
8420	1	1	1	54040402N0	Spring Washer
8428	1	1	1	2915269012	Protector
8429	2	2	2	51570305B0	P.H. Tapped Screw, P3 x 5
8433	1	1	1	56332040G0	Eyelet
8502	1			2221265010	Indicator
8503			1	2221265020	Indicator
8504			1	2221265030	Indicator
8511	2	2	2	51100305S9	B.H.M. Screw, B3 x 5
8512	1	1	1	2578861010	Label, UL Caution
8513	1	1	1	2932861010	Label, Do not remove
8515	1	1	1	2506265060	Indicator, Do not use as
8519			1	9510911010	Label, LL No.
8521	1			9510911020	Label, UL Factory
8523	1			2818861010	Label, FTC
8524	1			9511101020	Label, UL
8602	1			2221851010	Instructions, Set
8603		1	1	2221851310	Instructions, Set
8607	1			2886851100	Instructions, Flysheet
8609	1	1		2818851140	Instructions, Packing
8610			1	2818854040	Guarantee Card
8611		1	1	2818851020	Instructions, Important
8612		1	1	9630000180	Guarantee Card
8613	1	1	1	2221856010	Schematic
8615			1	9650000050	Service S. Card
8617	1			2818851040	Instructions, Packing
8623	1			2818854022	Guarantee Card
8624	1			2577854012	Guarantee Card
8625	1			2577851020	Instructions, Important
8626	1			2577813010	Envelope
8627			1	2818813010	Envelope
8629		1		2918813012	Envelope
8702	1	1	1	2221801010	Packing Case, Inner
8703	1	1	1	2221801020	Packing Case, Outer
8708	1	1	1	3448803013	Cushion
8709	1	1	1	3448803013	Cushion
8711	1	1	1	2918107150	Sheet
8712	1	1	1	9014538350	Polyethylene Bag, Set
8714	1	1	1	9013025010	Polyethylene Bag, Printed Matter
8715	1	1	1	9013025010	Polyethylene Bag, Accessories
8716		2		9510901020	Label
8717	1	1	1	1029804010	Sleeve
8718			1	9560000042	Hang Tag
8719	1	1	1	2731821010	Silicagel
8720	1	1	1	2819056010	Buffer
8722	4			9522815010	Serial No. Card
8723		4		9523015120	Serial No. Card
8724		4		9523015110	Serial No. Card
8732	1	1	1	ZA02000070	Ext. Antenna

16. TECHNICAL SPECIFICATIONS

Amplifier Section

RATED POWER OUTPUT, MINIMUM CONTINUOUS AVERAGE POWER	16 WATTS
PER CHANNEL, BOTH CHANNELS DRIVEN	
POWER BAND	20 Hz to 20 kHz
TOTAL HARMONIC DISTORTION	0.5%
LOAD IMPEDANCE	8 OHMS
Maximum Power Output, DIN 45500	22 W
(less than 1% THD, 10 min. test)	
Power Bandwidth at 1% THD, DIN 45500	20 Hz ~ 20 kHz
I.M. Distortion	0.5%
(I.H.F. method, 60 Hz and 7 kHz mixed 4:1 at rated power output)	
Damping Factor	35

Preamplifier Section

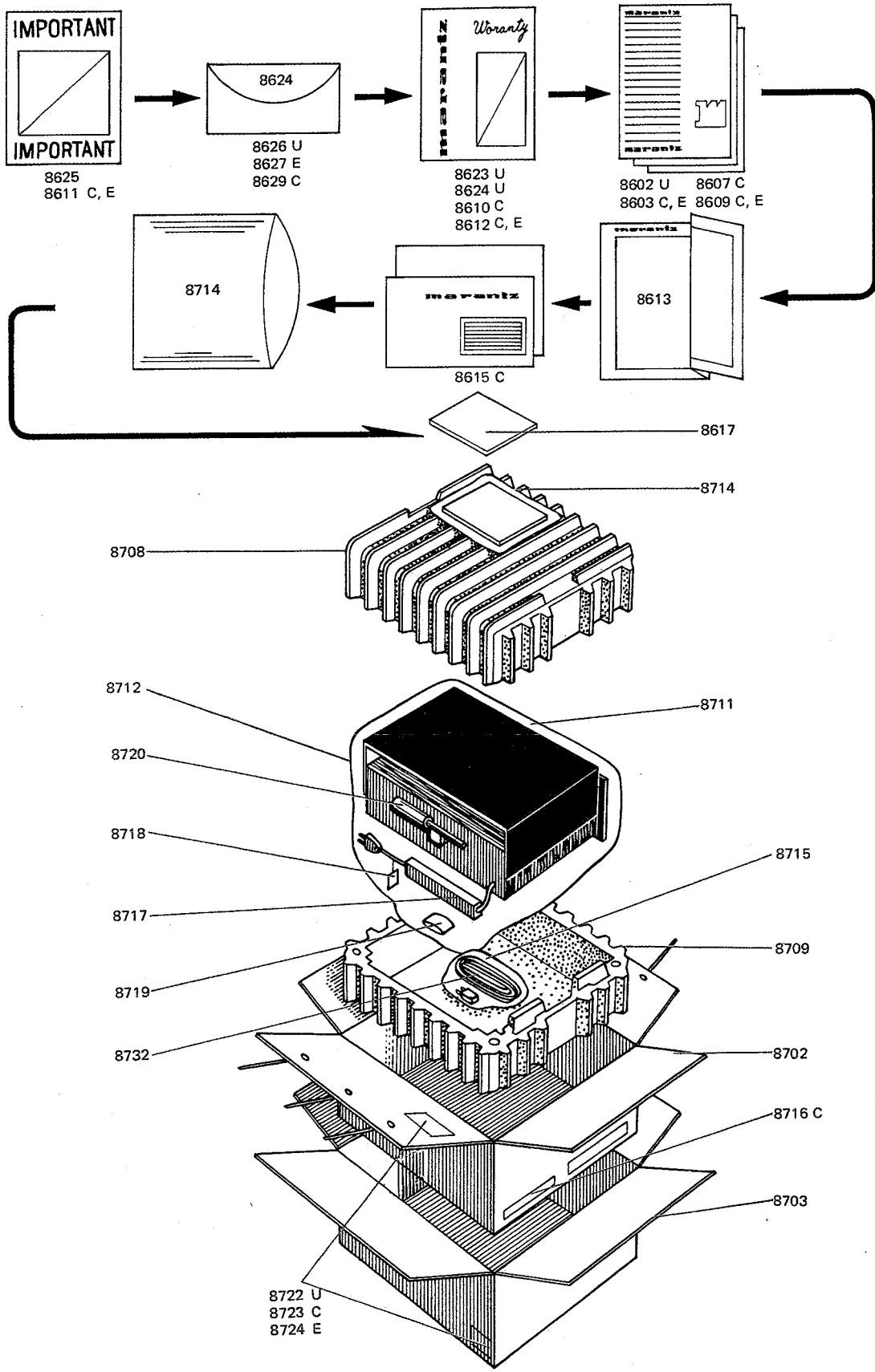
Phono	
Input Overload at 1 kHz	100 mV
Equivalent Input Noise	2.5 μ V
Dynamic Range	92 dB
(Dynamic Range is the ratio of input overload to equivalent input noise)	
Input Sensitivity	2.2 mV
Input Impedance	47 kOhms
Frequency Response, RIAA 20 Hz to 20 kHz	\pm 1.0 dB
Signal-to-Noise Ratio	74 dB
(at rated output and 7.75 mV input)	
Signal-to-Noise Ratio, unweighted (DIN 45500)	58 dB
High Level (Aux and Tape)	
Input Sensitivity	150 mV
Input Impedance	100 kOhms
Frequency Response (includes power amp.)	20 Hz to 60 kHz \pm 1.5 dB
Signal-to-Noise Ratio	84 dB
(ref. to rated output and 775 mV input)	
Output Levels	
Tape Out (ref. 7.75 mV at Phono inputs)	525 mV
Output Impedance	
Tape Out	600 Ohms

FM Tuner Section

Sensitivity	
IHF Usable	13.2 dBf (2.5 μ V)
IHF 50 dB Quieting	
(Mono)	19.2 dBf (5.0 μ V)
(Stereo)	39.2 dBf (50 μ V)
DIN Sensitivity	
(Mono, 26 dB S/N, 300 ohm input)	1.6 μ V
(Stereo, 46 dB S/N, 300 ohm input)	30 μ V
Quieting Slope (Mono)	
RF Input for 30 dB Quieting	12 dBf (2.2 μ V)
Quieting at:	
20 dBf (5.5 μ V)	50 dB
25 dBf (10 μ V)	55 dB
40 dBf (55 μ V)	63 dB
65 dBf (1000 μ V)	68 dB
Quieting Slope (Stereo)	
Quieting at:	
30 dBf (17 μ V)	40 dB
40 dBf (55 μ V)	50 dB
50 dBf (173 μ V)	55 dB
65 dBf (1000 μ V)	60 dB

Distortion (Mono)	0.4%
at 65 dBf (1000 μ V), 1000 Hz	
Hum and Noise	
at 65 dBf (1000 μ V)	68 dB
Mono	58 dB
Stereo	
Frequency Response	
30 Hz to 15 kHz	
Mono	± 2.0 dB
Stereo	± 2.0 dB
Capture Ratio	
at 45 dBf (100 μ V)	4.0 dB
at 65 dBf (1000 μ V)	3.0 dB
Alternate Channel Selectivity	50 dB
Spurious Response Rejection	75 dB
Image Response Rejection	50 dB
I.F. Rejection (Balanced)	70 dB
A.M. Suppression	45 dB
Stereo Separation	
100 Hz	35 dB
1000 Hz	38 dB
10 kHz	30 dB
Subcarrier Rejection	55 dB
AM Tuner Section	
IHF Usable Sensitivity	25 μ V
Distortion (THD), 30% Modulation	0.7%
Signal-to-Noise Ratio	49 dB
Frequency Response (± 3 dB)	40 Hz to 2.3 kHz
Alternate Channel Selectivity	40 dB
Image Rejection	37 dB
Spurious Response Rejection	40 dB
I.F. Rejection	35 dB
General	
Power Requirements	120 V ~, 60 Hz
	(E and N versions are featuring an external voltage selector for use on 110/120/240 V. Other versions can be converted by a qualified technician to operate on 110/120/240 V.)
Power Consumption at rated output, both channels operating	95 Watts
Idling Power (Volume Control at zero)	28 Watts
Semiconductor Complement	
Integrated Circuits	4
Transistors	37
Diodes	16
Field Effect Transistors	1
Dimensions	
Panel Width	441.3 mm (17-3/8 inches)
Panel Height	136.5 mm (5-3/8 inches)
Depth	292.1 mm (11-1/2 inches)
Weight	
Unit alone	9.5 kg (20.90 lbs.)
Packed for shipment	12.2 kg (26.84 lbs.)

17. PACKING MATERIAL EXPLODED VIEW



U: For U.S.A.
C: For Canada
E: For Europe

SERVICE INFORMATION FOR EUROPEAN MODEL

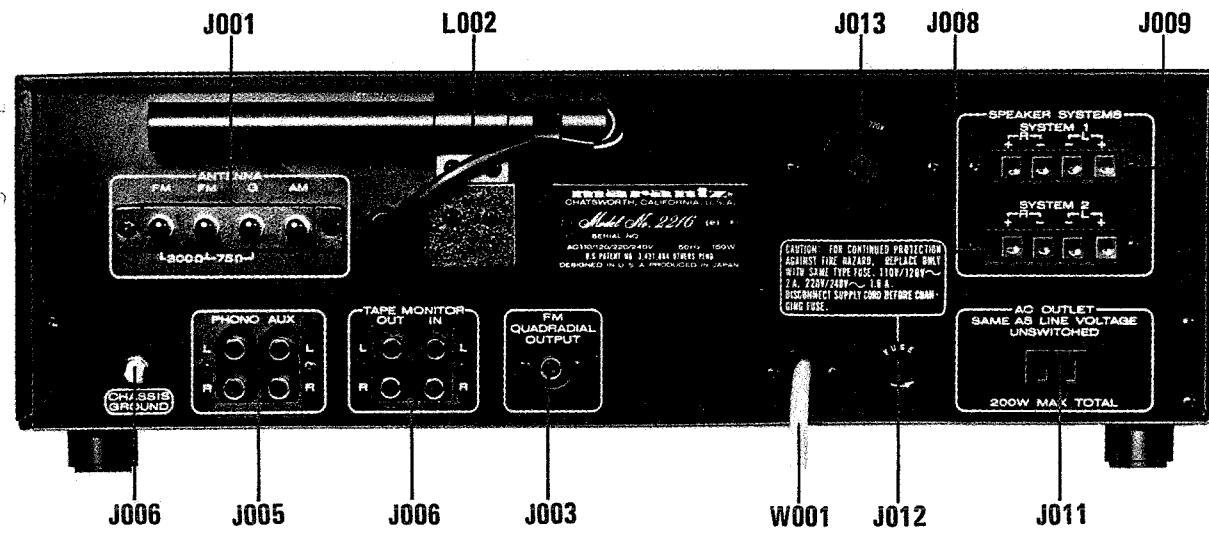
The information contained herein includes major component locations, voltage conversion and FTZ regulation. For the alignment procedures, test equipment and repairing hints refer to the original service manual.

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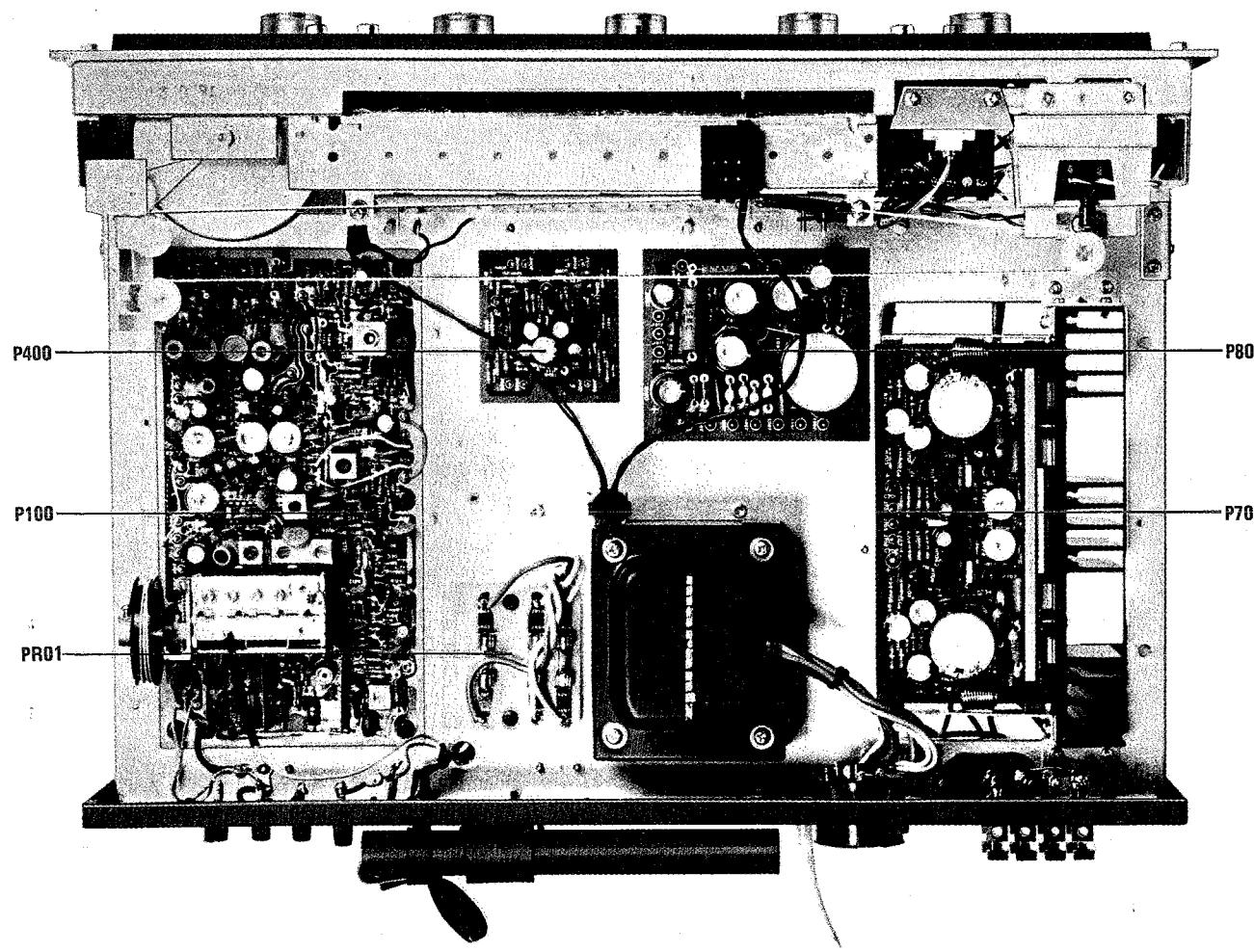
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1. MAJOR COMPONENT LOCATIONS

1.1 Rear Panel Adjustment and Component Locations



1.2 Main Chassis Component Locations (Top View)



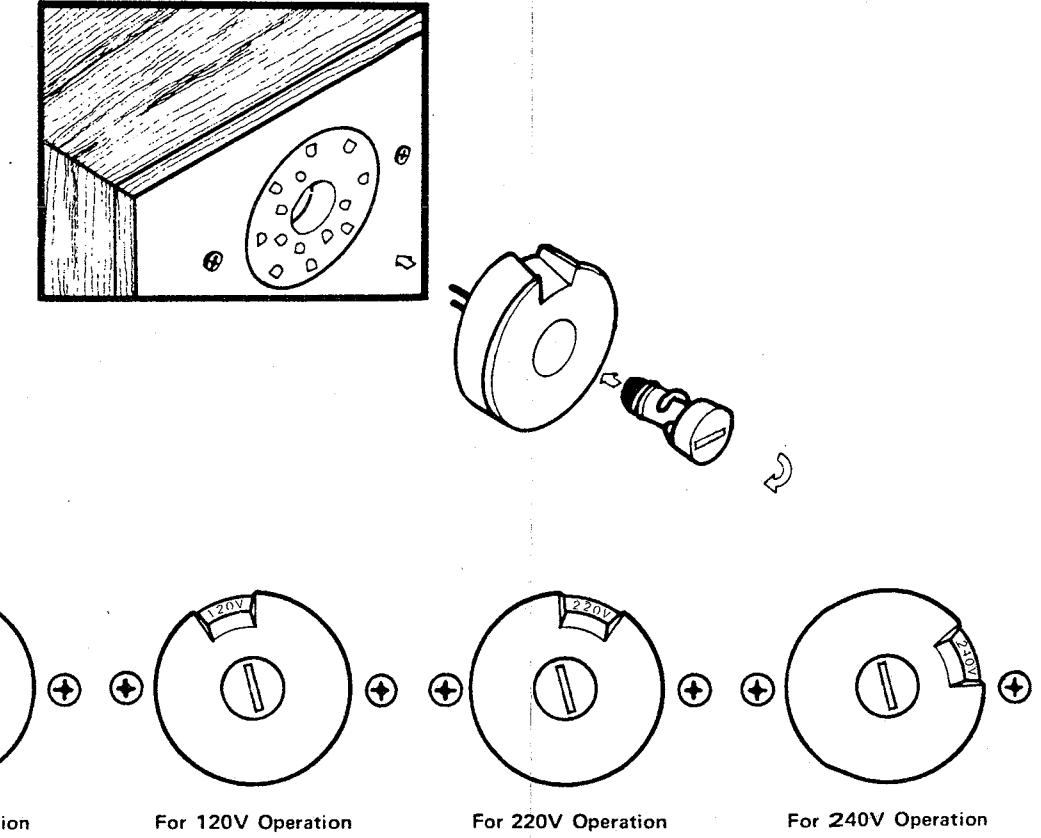
2. VOLTAGE CONVERSION

This Model is equipped with a universal power transformer to permit operation at 110, 120, 220 and 240 V AC 50/60 Hz.

To convert the unit to the required voltage, set the plug as illustrated so that you can adjust the voltage as required.

CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.

2.1 Voltage Conversion Chart



3. FTZ REGULATION

Instruction for the use in the range other than specified in FTZ codes

Achtung für die Leute, die in dem Gebiet wohnen, wo die FTZ-Bestimmungen vorherrschend sind.

Sollte das Gerät auch für Frequenzen ausserhalb des in den FTZ-Bestimmungen angegebenen Bereiches empfangebereit sein, bitten wir, den Bereich durch Nachstellen des Kernes in der Oszillatospule (in der Abbildung mit „FTZ“ gekennzeichnet) so zu korrigieren, dass er den Bestimmungen entspricht.